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(54) DERIVES D'ACIDE AZINYLOXY ET PHENOXY-DIARYL-CARBOXYLIQUE, LEUR PREPARATION ET LEUR UTILISATION EN TANT QU'ANTAGONISTES MIXTES DES RECEPTEURS D'ENDOTHELINE ETA/ETB

(54) AZINYLOXY, AND PHENOXY-DIARYL-CARBOXYLIC ACID DERIVATIVES, THEIR PREPARATION AND USE AS MIXED ETA/ETB ENDOTHELIN RECEPTOR ANTAGONISTS

(57) L'invention concerne des dérivés d'acide carboxylique de formule (I), dans laquelle R 1 représente tétrazol ou un groupe (a), R 2 représente hydrogène, hydroxy, NH $_2$, NH(alkyle C $_1$ -C $_4$), N(alkyle C $_1$ -C $_4$), halogène, alkyle C $_1$ -C $_4$, alcényle C $_2$ -C $_4$, alcoxy C $_1$ -C $_4$, halogénure d'alkyle C $_1$ -C $_4$, alcoxy C $_1$ -C $_4$, halogénure d'alcoxy C $_1$ -C $_4$ ou alkylthio C $_1$ -C $_4$, ou CR 2 est lié avec CR 10 , comme cela est indiqué ci-dessous, pour former un noyau à 5 ou 6 chaînons; X représente

(57) Carboxylic acid derivatives have the formula (I), in which R^1 stands for tetrazole or a group (a); R^2 stands for hydrogen, hydroxy, NH_2 , $NH(C_1-c_4-alkyl)$, $N(C_1-C_4-alkyl)_2$, halogen, $C_1-C_4-alkyl$, $C_2-C_4-alkinyl$, $C_1-C_4-alkinyl$, $C_1-C_4-alkinyl$, $C_1-C_4-alkinyl$, $C_1-C_4-alkinyl$, or $C_1-C_4-alkyl$, as indicated below, into a 5- or 6-membered ring; X stands for nitrogen or methine; Y stands for nitrogen or methine; Z stands for nitrogen or

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azote ou méthine; Y représente azote ou méthine; Z représente azote ou CR¹⁰, R¹⁰ représentant hydrogène ou alkyle C_1 - C_4 , ou CR^{10} forme avec CR^2 ou CR^3 un noyau alkylène ou alcénylène à 5 ou 6 chaînons, éventuellement substitué, et un ou plusieurs groupes méthylène peuvent être substitués par hydrogène, soufre, -NH ou N(alkyle C_1 - C_4); R^3 représente hydroxy, NH $_2$, NH(alkyle C₁-C₄), N(alkyle C₁-C₄)₂, halogène, alkyle C_1 - C_4 , alcényle C_2 - C_4 , alcynyle C_2 - C_4 , hydroxyalkyle C_1 - C_4 , halogénure d'alkyle C_1 - C_4 , alcoxy C_2 - C_4 , halogénure d'alcoxy C₁-C₄ ou alkylthio C₁-C₄, ou CR³ est lié avec CR¹⁰, comme cela est indiqué ci-dessous, pour former un noyau à 5 ou 6 chaînons; R⁴ et R⁵ (qui peuvent être identiques ou différents) représentent phényle ou naphtyle éventuellement substitués, ou phényle ou naphtyle liés mutuellement en position ortho par une liaison directe, un groupe méthylène, éthylène ou éthénylène, un atome d'oxygène ou de soufre ou un groupe SO₂-, NH-, ou N-alkyle; cycloalkyle C₃-C₈ éventuellement substitué; R⁶ représente cycloalkyle C₃-C₈ éventuellement substitué; phényle ou naphtyle éventuellement substitués, composé hétéroaromatique, à chaînons, cinq ou six éventuellement substitué contenant un à trois atomes d'azote et/ou un atome de soufre ou d'oxygène; W représente soufre ou oxygène; Q représente un bras écarteur dont la longueur correspond à une chaîne C2-C4. L'invention concerne également des sels physiologiquement tolérables desdits dérivés ainsi que leurs formes énantiomèrement diastéréoisomèrement pures, leur préparation ainsi que leur utilisation en tant qu'antagonistes mixtes des récepteurs ETA/ETB.

CR¹⁰, wherein R¹⁰ is hydrogen or C₁-C₄-alkyl or CR¹⁰ forms together with CR2 or CR3 an optionally substituted 5- or 6-membered alkylene or alkenylene ring, and wherein one or more methylene groups can be substituted by oxygen, sulphur, -NH or -N(C_1 - C_A -alkyl); stands for hydrogen, hydroxy, $\mathrm{NH(C_1\text{-}C_4\text{-}alkyl)},\ \mathrm{N(C_1\text{-}C_4\text{-}alkyl)_2},\ \mathrm{halogen},\ \mathrm{C_1\text{-}C_4\text{-}}$ alkyl, C_2 - C_4 -alkenyl, C_2 - C_4 -alkinyl, C_1 - C_4 hydroxyalkyl, C_1 - C_4 -halogenalkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -halogenalkoxy, C_1 - C_4 -alkylthio; or CR^3 is linked to CR 10 as indicated above into a 5- or 6-membered ring, R⁴ and R⁵ (which may be identical or different) stand for optionally substituted phenyl or naphthyl, or for phenyl or naphthyl which are linked to each other at the orthoposition by a direct bond, a methylene, ethylene or ethenylene group, an oxygen or sulphur atom or an SO2, NH or N-alkyl group; optionally substituted C3-C8cycloalkyl; R⁶ stands for optionally substituted C₃-C₈cycloalkyl; optionally substituted phenyl or naphthyl, a 5- or 6-membered, optionally substituted heteroaromatic compound containing one to three nitrogen atoms and/or one sulphur or oxygen atom; W stands for sulphur or oxygen; Q is a spacer with a length that corresponds to a C2-C4 chain. Also disclosed are the physiologically tolerable salts of these compounds, as well as their pure enantiomer and diastereoisomer forms, their preparation and use as mixed ETA/ETB-receptor antagonists.

PCT

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(54) Title: AZINYLOXY, AND PHENOXY-DIARYL-CARBOXYLIC ACID DERIVATIVES, THEIR PREPARATION AND USE AS MIXED ET_A/ET_B ENDOTHELIN RECEPTOR ANTAGONISTS

(54) Bezeichnung: AZINYLOXY- UND PHENOXY-DIARYL-CARBONSÄURE DERIVATE, DEREN HERSTELLUNG UND DEREN VERWENDUNG ALS GEMISCHTE ET_A/ET_B ENDOTHELIN-REZEPTORANTAGONISTEN

$$R^{6} - Q - W - C - CH - O - X - Z$$

$$R^{5} - R^{1}$$

$$R^{5} - R^{1}$$

$$X - Q - W - C - CH - O - X - Z$$

$$R^{3}$$

$$(1)$$

(57) Abstract

Carboxylic acid derivatives have the formula (I), in which R¹ stands for tetrazole or a group (a); R² stands for hydrogen, hydroxy, NH₂, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkinyl, C₁-C₄-halogenalkyl, C₁-C₄-alkoxy, C₁-C₄-halogenalkyl, C₁-C₄-alkylthio, or CR² is linked with CR¹0, as indicated below, into a 5- or 6-membered ring; X stands for nitrogen or methine; Y stands for nitrogen or methine; Z stands for nitrogen or CR¹0, wherein R¹0 is hydrogen or C₁-C₄-alkyl or CR¹0 forms together with CR² or CR³ an optionally substituted 5- or 6-membered alkylene or alkenylene ring, and wherein one or more methylene groups can be substituted by oxygen, sulphur, -NH or -N(C₁-C₄-alkyl); R³ stands for hydrogen, hydroxy, NH₂, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkinyl, C₁-C₄-hydroxyalkyl, C₁-C₄-halogenalkyl, C₁-C₄-alkoxy, C₁-C₄-halogenalkoxy, C₁-C₄-alkylthio; or CR³ is linked to CR¹0 as indicated above into a 5- or 6-membered ring, R⁴ and R³ (which may be identical or different) stand for optionally substituted phenyl or naphthyl, or for phenyl or naphthyl which are linked to each other at the ortho-position by a direct bond, a methylene, ethylene or ethenylene group, an oxygen or sulphur atom or an SO₂, NH or N-alkyl group; optionally substituted C₃-C₈-cycloalkyl; R⁰ stands for optionally substituted C₃-C₈-cycloalkyl; continually substituted heteroaromatic compound containing one to three nitrogen atoms and/or one sulphur or oxygen atom; W stands for sulphur or oxygen; Q is a spacer with a length that corresponds to a C₂-C₄ chain. Also disclosed are the physiologically tolerable salts of these compounds, as well as their pure enantiomer and diastereoisomer forms, their preparation and use as mixed ET₄/ET₈-receptor antagonists.

AZINYLOXY, AND PHENOXY-DIARYL-CARBOXYLIC ACID DERIVATIVES, THEIR PREPARATION AND USE AS MIXED ETA/ETB ENDOTHELIN RECEPTOR ANTAGONISTS

The present invention relates to novel carboxylic acid derivatives, their preparation and use.

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Endothelin is a peptide which consists of 21 amino acids and is synthesized and released by vascular endothelium. Endothelin exists in three isoforms, ET-1, ET-2 and ET-3. "Endothelin" or "ET" hereinafter means one or all isoforms of endothelin. Endothelin is a potent vasoconstrictor and has a great effect on vessel tone. It is known that this vasoconstriction is caused by binding of endothelin to its receptor (Nature, 332, 1988, 411-415; FEBS Letters, 231, 1988, 440-444 and Biochem. Biophys. Res. Commun., 154, 1988, 868-875).

Increased or abnormal release of endothelin causes persistent vasoconstriction in peripheral, renal and cerebral vessels, which may lead to disorders. As reported in the literature, endothelin is involved in a number of disorders. These include: hypertension, acute myocardial infarct, pulmonary hypertension, Raynaud's syndrome, cerebral vasospasms, stroke, benign prostate hypertrophy, atherosclerosis and asthma (J. Vascular Med. Biology 2, (1990) 207, J. Am. Med. Association 264, (1990) 2868, Nature 344, (1990) 114, N. Engl. J. Med. 322, (1989) 205, N. Engl. J. Med. 328, (1993) 1732, Nephron 66, (1994) 373, Stroke 25, (1994) 904, Nature 365, (1993) 759, J. Mol. Cell. Cardiol. 27, (1995) A234; Cancer Research 56, (1996) 663).

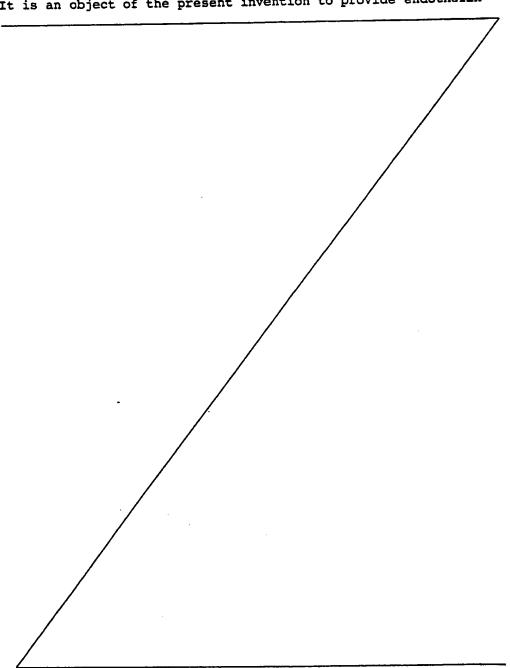
At least two endothelin receptor subtypes, ET_A and ET_B receptors, have been described in the literature (Nature 348, (1990) 730, Nature 348, (1990) 732). Accordingly, substances which inhibit the binding of endothelin to the two receptors ought to antagonize the physiological effects of endothelin and therefore be valuable drugs.

WO 96/11914 describes carboxylic acid derivatives which, however, bind with high affinity to the ET_A receptor and with considerably less affinity to the ET_B receptor (called ET_A -specific antagonists).

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 ${\tt ET_{A}} ext{-}{\tt spec}$ cific antagonists mean here those antagonists whose affinity for the ET_A receptor is at least twenty times higher than their affinity for the ET_B receptor.

It is an object of the present invention to provide endothelin



receptor antagonists which bind with approximately the same affinity to the ET_A and ET_B receptors (called mixed antagonists).

Approximately the same affinity for the receptors means that the 5 ET_A, ET_B affinity ratio is greater than 0.1 and less than 20, preferably less than 10.

We have found that this object is achieved by carboxylic acid derivatives of the formula I

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where R1 is tetrazole [sic] or a group

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where R has the following meaning:

a) a radical OR7 where R7 is:

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hydrogen, the cation of an alkali metal, the cation of an alkaline earth metal, a physiologically tolerated organic ammonium ion such as C_1 - C_4 -alkylammonium or the ammonium ion;

C₃-C₈-cycloalkyl, C₁-C₈-alkyl, CH₂-phenyl which can be substituted by one or more of the following radicals: halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, hydroxyl, C₁-C₄-alkoxy, mercapto, C₁-C₄-alkylthio, amino, carboxyl, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂;

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 $C_3-C_6-alkenyl$ or $C_3-C_6-alkynyl$, it being possible for these groups in turn to carry one to five halogen atoms;

R⁷ can furthermore be a phenyl radical which may carry one to five halogen atoms and/or one to three of the following radicals, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, hydroxyl, C₁-C₄-alkoxy, mercapto, C₁-C₄-alkylthio, amino, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂;

45 b) a 5-membered heteroaromatic system which is linked via a nitrogen atom, such as pyrrolyl, pyrazolyl, imidazolyl and triazolyl, which may carry one to two halogen atoms or one to

two C₁-C₄-alkyl or one to two C₁-C₄-alkoxy groups;

c) a group

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where k is 0, 1 and 2, p is 1, 2, 3 and 4 and R^8 is

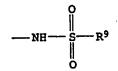
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 $C_1-C_4-alkyl$, $C_3-C_8-cycloalkyl$, $C_3-C_6-alkenyl$, $C_3-C_6-alkynyl$ or phenyl which can be substituted by one or more, eg.one to three, of the following radicals: halogen, nitro, cyano, $C_1-C_4-alkyl$, $C_1-C_4-haloalkyl$, hydroxyl, $C_1-C_4-alkoxy$, $C_1-C_4-alkyl$ thio, mercapto, amino, carboxyl, $C_1-C_4-alkyl$), $N(C_1-C_4-alkyl)_2$;

d) a radical

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in which R9 is:

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 C_1-C_4 -alkyl, C_3-C_6 -alkenyl, C_3-C_6 -alkynyl, C_3-C_8 -cycloalkyl, C_1-C_4 -haloalkyl, it being possible for these radicals to carry a C_1-C_4 -alkoxy, C_1-C_4 -alkylthio and/or a phenyl radical as mentioned under c);

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phenyl, unsubstituted or substituted, in particular as mentioned above,

e) R1 can furthermore be

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where R^{13} and R^{14} can be identical or different and have the following meanings:

hydrogen, C₁-C₈-alkyl, C₃-C₈-cycloalkyl, C₃-C₈-alkenyl,

C₃-C₈-alkynyl, benzyl, phenyl which may carry one to five
halogen atoms and/or one to three of the following radicals:
nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, hydroxyl,

 $C_1-C_4-alkoxy$, mercapto, $C_1-C_4-alkylthio$, amino, $NH(C_1-C_4-alkyl)$, $N(C_1-C_4-alkyl)_2$,

- or R^{13} and R^{14} together form a C_4-C_7 -alkylene chain which is closed to form a ring and which may be substituted by C_1-C_4 -alkyl and in which an alkylene group may be replaced by oxygen, sulfur or nitrogen, such as $-(CH_2)_4-$, $-(CH_2)_5-$, $-(CH_2)_6-$, $-(CH_2)_2-O-(CH_2)_2-$, $-(CH_2)_7-$, $-CH_2-S-(CH_2)_2-$, $-(CH_2)_2-N-(CH_2)_2-$;
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 R² hydrogen, hydroxyl, NH₂, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl, C₁-C₄-hydroxyalkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio, or CR² is linked to CR¹⁰ as indicated below to give a 5- or 6-membered ring.
 - x nitrogen or methine.
 - y nitrogen or methine.
- z nitrogen or CR¹⁰, where R¹⁰ is hydrogen or C₁-C₄-alkyl, or CR¹⁰ forms together with CR² or CR³ a 5- or 6-membered alkylene or alkenylene ring which may be substituted by one or two C₁-C₄-alkyl groups and in which in each case one or more methylene groups can be replaced by oxygen, sulfur, -NH or N(C₁-C₄-alkyl)₂.
 - At least one of the ring members X, Y or Z is nitrogen.
- hydrogen, hydroxyl, NH2, NH(C1-C4-alkyl), N(C1-C4-alkyl)2, halogen, C1-C4-alkyl, C2-C4-alkenyl, C2-C4-alkynyl, C1-C4-haloalkyl, C1-C4-alkoxy, C1-C4-haloalkoxy, C1-C4-hydroxyalkyl or C1-C4-alkylthio, or CR3 is linked to CR10 as indicated above to give a 5- or 6-membered ring.
- R^4 and R^5 (which may be identical or different):
- phenyl or naphthyl, which may be substituted by one or more of the following radicals: halogen, nitro, cyano, hydroxyl,

 mercapto, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₁-C₄-hydroxyalkyl,

 C₂-C₄-alkynyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, phenoxy,

 carboxyl, C₁-C₄-haloalkoxy, C₁-C₄-alkylthio, amino,

 NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂ or phenyl which can be substituted one or more times, eg. one to three times by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl,

 C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio; or

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phenyl or naphthyl, which are linked together in the ortho positions by a direct linkage, a methylene, ethylene or ethenylene group, an oxygen or sulfur atom or an SO₂, NH or N-alkyl group;

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C3-C8-cycloalkyl.

R6 C₃-C₈-Cycloalkyl, it being possible for these radicals in each case to be substituted one or more times by: halogen,

10 hydroxyl, mercapto, carboxyl, nitro, cyano, C₁-C₄-alkoxy,

C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl, C₃-C₆-alkenyloxy,

C₃-C₆-alkynyloxy, C₁-C₄-alkylthio, C₁-C₄-haloalkoxy,

C₁-C₄-alkylcarbonyl, C₁-C₄-alkoxycarbonyl, C₃-C₈-alkyl
carbonylalkyl, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, or phenyl

which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl,

C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio;

phenyl or naphthyl, each of which can be substituted by one or more of the following radicals: halogen, R¹⁵, nitro, mercapto, carboxyl, cyano, hydroxyl, amino, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl, C₃-C₆-alkenyloxy, C₁-C₄-haloalkyl, C₃-C₆-alkynyloxy, C₁-C₄-alkylcarbonyl, C₁-C₄-alkoxycarbonyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, phenoxy, C₁-C₄-alkylthio, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, dioxomethylene [sic], dioxoethylene [sic] or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio;

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a five- or six-membered heteroaromatic system containing one to three nitrogen atoms and/or one sulfur or oxygen atom, which may carry one to four halogen atoms and/or one to two of the following radicals: C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkenyl, C₄-C₄-alkenyl,

C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy,
C₁-C₄-alkylthio, phenyl or phenoxy it being possible for the
phenyl radicals in turn to carry one to five halogen atoms
and/or one to three of the following radicals: C₁-C₄-alkyl,
C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy and/or

40 C₁-C₄-alkylthio;

R15 is C₁-C₄-alkyl, C₁-C₄-alkylthio or C₁-C₄-alkoxy which carry one of the following radicals: hydroxyl, carboxyl, amino, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, carboxamide [sic] or CON(C₁-C₄-alkyl)₂;

sulfur or oxygen. W

a spacer whose length corresponds to that of a C2-C4 chain. Q The function of Q is to produce a defined distance between the groups R6 and W in the compounds of the formula I. The 5 distance should correspond to the length of a C2-C4-alkyl chain. This can be achieved by a large number of chemical radicals, for example with C_2 - C_4 -alkyl, C_3 - C_4 -alkenyl, $C_3-C_4-alkynyl$, $-S-CH_2-CH_2-$, $-O-CH_2-CH_2-$, $-N-CO-CH_2-O-$, it being possible for each of these radicals to be substituted one or 10 more times by: halogen, hydroxyl, mercapto, C1-C4-alkyl, C2-C4-alkenyl, C2-C4-alkynyl, carboxyl, nitro, cyano, C_1-C_4 -alkoxy, C_3-C_6 -alkenyloxy, C_3-C_6 -alkynyloxy, C_1 - C_4 -alkylthio, C_1 - C_4 -haloalkoxy, C_1 - C_4 -alkylcarbonyl, $C_1-C_4-alkoxycarbonyl$, $C_{3-8}-alkylcarbonylalkyl$, NH($C_1-C_4-alkyl$), 15 $N(C_1-C_4-alky1)_2$, phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or

 C_1-C_4 -alkylthio. 20

Or the spacer Q is part of a 5-7-membered heterocyclic or carbocyclic ring to which R6 is fused.

The following definitions apply thereto and hereinafter:

An alkali metal is, for example, lithium, sodium, potassium;

An alkaline earth metal is, for example, calcium, magnesium, barium;

30 C3-C8-cycloalkyl is, for example, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl or cyclooctyl;

C1-C4-haloalkyl can be linear or branched, such as, for example 35 fluoromethyl, difluoromethyl, trifluoromethyl, chlorodifluoromethyl, dichlorofluoromethyl, trichloromethyl, 1-fluoroethyl, 2-fluoroethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 2-chloro-2,2-difluoroethyl, 2,2-dichloro-2-fluoroethyl, 2,2,2-trichloroethyl or 40 pentafluoroethyl;

C1-C4-haloalkoxy can be linear or branched, such as, for example, difluoromethoxy, trifluoromethoxy, chlorodifluoromethoxy, 1-fluoroethoxy, 2,2-difluoroethoxy, 1,1,2,2-tetrafluoroethoxy, 45 2,2,2-trifluoroethoxy, 2-chloro-1,1,2-trifluoroethoxy, 2-fluoroethoxy or pentafluoroethoxy;

C₁-C₄-alkyl can be linear or branched, such as, for xample, methyl, ethyl, 1-propyl, 2-propyl, 2-methyl-2-propyl, 2-methyl-1-propyl, 1-butyl or 2-butyl;

- 5 C₂-C₄-alkenyl can be linear or branched, such as, for example, ethenyl, 1-propen-3-yl, 1-propen-2-yl, 1-propen-1-yl, 2-methyl-1-propenyl, 1-butenyl or 2-butenyl;
- C₂-C₄-alkynyl can be linear or branched, such as, for example, 10 ethynyl, 1-propyn-1-yl, 1-propyn-3-yl, 1-butyn-4-yl or 2-butyn-4-yl;

 C_1 - C_4 -alkoxy can be linear or branched, such as, for example, methoxy, ethoxy, propoxy, 1-methylethoxy, butoxy,

- 15 1-methylpropoxy, 2-methylpropoxy or 1,1-dimethylethoxy;
 - C_3-C_6 -alkenyloxy can be linear or branched, such as, for example, allyloxy, 2-buten-1-yloxy or 3-buten-2-yloxy;
- 20 C₁-C₄-hydroxyalkyl can be linear or branched, such as, for example, hydroxymethyl, 1-hydroxyether-2-yl,
 - $C_3-C_6-alkynyloxy$ can be linear or branched, such as, for example, 2-propyn-1-yloxy, 2-butyn-1-yloxy or 3-butyn-2-yloxy;
- 25 C₁-C₄-alkylthio can be linear or branched, such as, for example, methylthio, ethylthio, propylthio, 1-methylethylthio, butylthio, 1-methylpropylthio, 2-methylpropylthio or 1,1-dimethylethylthio;
- 30 C₁-C₄-alkylcarbonyl can be linear or branched, such as, for example, acetyl, ethylcarbonyl or 2-propylcarbonyl;
- C₁-C₄-alkoxycarbonyl can be linear or branched, such as, for example, methoxycarbonyl, ethoxycarbonyl, n-propoxycarbonyl, 35 i-propoxycarbonyl or n-butoxycarbonyl;
 - C_3-C_8 -alkylcarbonylalkyl can be linear or branched, such as, for example, 2-oxo-1-propyl, 3-oxo-1-butyl or 3-oxo-2-butyl
- 40 C_1 - C_8 -alkyl can be linear or branched, such as, for example, C_1 - C_4 -alkyl, pentyl, hexyl, heptyl or octyl;
 - halogen is, for example fluorine, chlorine, bromine, iodine.
- 45 The invention furthermore relates to those compounds from which compounds of the formula I can be liberated (called prodrugs).

Preferred prodrugs are those with which release takes place under conditions like those prevailing in certain compartments of the body, eg. in the stomach, intestine, bloodstream, liver.

5 The compounds, and the intermediates for preparing them, such as II, III and IV, may have one or more asymmetrically substituted carbon atoms. Such compounds can be in the form of pure enantiomers or pure diastereomers or mixture thereof. An enantiomerically pure compound is preferably used as active 10 substance.

The invention furthermore relates to the use of the abovementioned carboxylic acid derivatives for producing drugs, in particular for producing inhibitors of ET, and ET, receptors.

15 The compounds according to the invention are particularly suitable as mixed antagonists as defined at the outset.

Compounds of the formula IV where Z is sulfur or oxygen can be prepared as described in WO 96/11914, also in enantiomerically 20 pure form.

30 Compounds of the formula III are known or can be synthesized, for example, by reducing the corresponding carboxylic acids or esters thereof or by other conventional methods.

Carboxylic acid derivatives of the formula IV [sic] can also be 35 prepared by reacting a compound of the formula IVa with an alcohol or thiol of the formula VII with acid catalysis.

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$$R^{19} - W - \begin{matrix} R^{16} \\ & C \\ & Q \end{matrix}$$

VI

10 The indicated radicals have the following meanings:

R1 has the meaning indicated for formula I

R16 and R17, which may be identical or different, hydrogen or alkyl, alkenyl, alkynyl, phenyl, naphthyl, cycloalkyl, in each case unsubstituted or substituted,

R18 hydrogen or alkyl, alkenyl, alkynyl, phenyl, naphthyl, cycloalkyl, in each case unsubstituted or substituted,

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R¹⁹ hydrogen or alkyl, alkenyl, alkynyl, phenyl, naphthyl, cycloalkyl, in each case unsubstituted or substituted,

and the radicals preferably have the following meanings:

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R1 COOR7

R¹⁶ and R¹⁷, which may be identical or different, alkyl, phenyl, naphthyl, cycloalkyl, in each case unsubstituted or substituted,

R18 alkyl, phenyl, cycloalkyl, in each case unsubstituted or substituted,

35 R¹⁹ alkyl, alkenyl, alkynyl, phenyl, cycloalkyl, in each case unsubstituted or substituted,

and the following radicals are particularly preferred:

40 R1 COOCH3

R16 R4

R17 R5

45

R18 alkyl, unsubstituted or substituted, in particular methyl

R19 R6-O.

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The carboxylic acid derivatives of the formula IV can be prepared by this process by reacting a compound of the formula IVa with an 5 alcohol or thiol of the formula III with acid catalysis

For this purpose, the compounds IVa and III are mixed without 25 diluent or in a solvent which is inert for this reaction, and catalytic amounts of an acid such as p-toluenesulfonic acid are added. Examples of inert solvents are methylene chloride, benzene or toluene. Also suitable are those inert solvents which form an azeotrope with the alcohol R¹⁸OH. In the case of methanol 30 (R¹⁸ = CH₃), examples of these are chloroform or methyl acetate.

The reaction mixture is then stirred at from room temperature to the boiling point of the solvent. The resulting alcohol R¹⁸OH is removed by distilling out or reducing the pressure. This method 35 is also suitable for preparing enantiomerically pure IV if the IVa starting material is enantiomerically pure.

Compounds of the formula IVa are known and are described, for example, in WO 96/11914.

The compounds according to the invention in which the substituents have the meanings stated for formula I can be prepared, for example, by reacting the carboxylic acid derivatives of the formula IV in which the substituents have the 45 stated meanings with compounds of the formula V.

In formula V, R¹¹ is halogen or R¹²-SO₂- where R¹² can be C₁-C₄-alkyl, C₁-C₄-haloalkyl or phenyl. In addition, at least one 10 of the ring members X or Y or Z is nitrogen. The reaction preferably takes place in an inert solvent or diluent with the addition of a suitable base, ie. a base which deprotonates the intermediate IV, at a temperature in the range from room temperature to the boiling point of the solvent.

Compounds of type I with R¹ = COOH can furthermore be obtained directly by deprotonating the intermediate IV where R¹ is COOH with two equivalents of a suitable base, and reacting with compounds of the formula V. This reaction also takes place in an 20 inert solvent and at a temperature in the range from room temperature to the boiling point of the solvent.

Examples of such solvents and diluents are aliphatic, alicyclic and aromatic hydrocarbons, each of which may be chlorinated, such 25 as hexane, cyclohexane, petroleum ether, naphtha, benzene, toluene, xylene, methylene chloride, chloroform, carbon tetrachloride, ethyl chloride and trichloroethylene, ethers such as diisopropyl ether, dibutyl ether, methyl tert-butyl ether, propylene oxide, dioxane and tetrahydrofuran, nitriles such as acetonitrile and propionitrile, amides such as dimethylformamide, dimethylacetamide and N-methylpyrrolidone, sulfoxides and sulfones, for example dimethyl sulfoxide and sulfolane.

Compounds of the formula V are known, and in some cases can be 35 bought or prepared in a conventional way.

The base which can be used is an alkali metal or alkaline earth metal hydride such as sodium hydride, potassium hydride or calcium hydride, a carbonate such as an alkali metal carbonate, 40 eg. sodium or potassium carbonate, an alkali metal or alkaline earth metal hydroxide such as sodium or potassium hydroxide, an organometallic compound such as butyllithium or an alkali metal amide such as lithium diisopropylamide or lithium amide.

45 Compounds of the formula I can also be prepared by starting from the corresponding carboxylic acids, ie. compounds of the formula I where R^1 is COOH, and converting first them in a conventional

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way into an activated form, such as a halide, an anhydride or imidazolide, and then reacting the latter with an appropriate hydroxyl compound HOR7. This reaction can be carried out in conventional solvents and often requires the addition of a base, in which case those mentioned above are suitable. These two steps can also be simplified, for example, by allowing the carboxylic acid to act on the hydroxyl compound in the presence of a dehydrating agent such as a carbodiimide.

- 10 It is also possible to prepare compounds of the formula I by starting from the salts of the appropriate carboxylic acids, ie. from compounds of the formula I where R1 is COR and R is OM [sic] where M can be an alkali metal cation or the equivalent of an alkaline earth metal cation. These salts can be reacted with many compounds of the formula R-A where A is a conventional nucleofugic leaving group, for example halogens such as chlorine, bromine, iodine, or aryl- or alkylsulfonyl which is unsubstituted or substituted by halogen, alkyl or haloalkyl, such as toluenesulfonyl and methylsulfonyl, or another equivalent leaving
- 20 group. Compounds of the formula R-A with a reactive substituent A are known or can easily be obtained with general expert knowledge. This reaction can be carried out in conventional solvents and is advantageously undertaken with the addition of a base, in which case those mentioned above are suitable.

In some cases it is necessary to use generally known protective group techniques to prepare compounds I according to the invention. If, for example, R⁶ is to be 4-hydroxyphenyl, it is possible first to protect the hydroxyl group as benzyl ether, 30 which is then cleaved at a suitable stage in the reaction sequence.

Compounds of the formula I where R^1 is tetrazole [sic] can be prepared as described in WO 96/11914.

With a view to the biological effect, preferred carboxylic acid derivatives of the formula I, both as pure enantiomers or pure diastereomers or as mixture thereof, are those where the substituents have the following meanings:

hydrogen, hydroxyl, halogen, N(C₁-C₄-alkyl)₂, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, or CR² is linked to CR¹⁰ as indicated below to give a 5- or 6-membered ring;

X nitrog n or methine;

- y nitrogen or methine;
- nitrogen or CR¹⁰, where R¹⁰ is hydrogen or C₁₋₄-alkyl, or CR¹⁰ forms together with CR² or CR³ a 5- or 6-membered alkylene or alkenylene ring which can be substituted by one or two methyl groups and in which, in each case, one methylene group can be replaced by oxygen or sulfur, such as -CH₂-CH₂-O-, -CH₂-CH₂-O-, -CH=CH-O-, -CH=CH-CH₂O-, -CH(CH₃)-CH(CH₃)-O-, -CH=C(CH₃)-O-, -C(CH₃)-C(CH₃)-O-, or -C(CH₃)-C(CH₃)-S;

10 At least one of the ring members X, Y or Z is nitrogen.

- R³ hydrogen, hydroxyl, halogen, N(C₁-C₄-alkyl)₂, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, or CR³ is linked to CR¹0 as indicated above to give a 5- or 6-membered ring;
 - R4 and R5 (which can be identical or different):
- phenyl or naphthyl, which can be substituted by one or more of the following radicals: halogen, nitro, cyano, hydroxyl, mercapto, amino, C₁-C₄-alkyl, C₁-C₄-haloalkyl, carboxyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, phenoxy, C₁-C₄-alkylthio, NH(C₁-C₄-alkyl) or N(C₁-C₄-alkyl)₂ or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio; or
- phenyl or naphthyl, which are connected together in the ortho positions by a direct linkage, a methylene, ethylene or ethenylene group, an oxygen or sulfur atom or an SO₂-, NH- or N-alkyl group,

C3-C8-cycloalkyl;

R6 C₃-C₈-cycloalkyl, it being possible for these radicals in each case to be substituted one or more times by: halogen, hydroxyl, mercapto, carboxyl, nitro, cyano, C₁-C₄-alkoxy, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl, C₃-C₆-alkenyloxy,

C₃-C₆-alkynyloxy, C₁-C₄-alkylthio, C₁-C₄-haloalkoxy,
C₁-C₄-alkylcarbonyl, C₁-C₄-alkoxycarbonyl, NH(C₁-C₄-alkyl),
N(C₁-C₄-alkyl)₂ or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano,
C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or
C₁-C₄-alkylthio;

phenyl or naphthyl, each of which can be substituted by one

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or more of the following radicals: halogen, R¹⁵, nitro, mercapto, carboxyl, cyano, hydroxyl, amino, C₁-C₄-alkyl, C₂-C₄-alk nyl, C₂-C₄-alkynyl, C₃-C₆-alkenyloxy, C₁-C₄-haloalkyl, C₃-C₆- alkynyloxy, C₁-C₄-alkylcarbonyl, C₁-C₄-alkoxycarbonyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, phenoxy, C₁-C₄-alkylthio, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, dioxomethylene [sic], dioxoethylene [sic] or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkylthio;

a five- or six-membered heteroaromatic system containing one to three nitrogen atoms and/or one sulfur or oxygen atom, which can carry one to four halogen atoms and/or one to two of the following radicals: C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, C₁-C₄-alkylthio, phenyl, phenoxy or phenylcarbonyl, where the phenyl radicals in turn can carry one to five halogen atoms and/or one to three of the following radicals: C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy and/or C₁-C₄-alkylthio;

- R15 methyl, ethyl, methoxy or ethoxy which carry one of the
 following radicals: hydroxyl, carboxyl, amino,
 NH(C1-C4-alkyl), N(C1-C4-alkyl)2, carboxamide [sic] or
 CON(C1-C4-alkyl)2;
- w sulfur or oxygen;
- Q C₂-C₄-alkyl, C₃-C₄-alkenyl, C₃-C₄-alkynyl, -S-CH₂-CH₂-,

 -O-CH₂-CH₂-, it being possible for each of these radicals to be substituted one or more times by: halogen, hydroxyl, mercapto, carboxyl, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkoxy, C₁-C₄-alkoxycarbonyl, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂ or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio
- or Q forms together with R6 the following ring systems:

 2-indanyl, 3-indanyl, 1,2,3,4-tetrahydro-2-naphthyl,

 1,2,3,4-tetrahydro-3-naphthyl, it being possible for the
 phenyl rings in each case to be substituted by: halogen,
 hydroxyl, mercapto, carboxyl, nitro, cyano, C₁-C₄-alkoxy,

 C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl, C₃-C₆-alkenyloxy,

 C₃-C₆-alkynyloxy, C₁-C₄-alkylthio, C₁-C₄-haloalkoxy,

 C₁-C₄-alkylcarbonyl, C₁-C₄-alkoxycarbonyl, amino,
 NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂ or phenyl.

Particularly preferred compounds of the formula I, both as pure enantiomers and pure diastereomers or mixtures thereof, are those where the substituents have the following meanings:

- R² trifluoromethyl, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, or CR² is linked to CR¹⁰ as indicated below to give a 5- or 6-membered ring;
- 10 X nitrogen or methine;
 - Y nitrogen or methine;
- 7 nitrogen or CR¹⁰ where R¹⁰ is hydrogen or C₁₋₄-alkyl, or CR¹⁰ forms together with CR² or CR³ a 5- or 6-membered alkylene or alkenylene ring which can be substituted by one or two methyl groups and in which in each case a methylene group can be replaced by oxygen or sulfur, such as -CH₂-CH₂-O-, -CH₂-CH₂-CH₂-O-, -CH₂-CH₂-CH₂-O-, -CH₂-CH₂-O-, -CH₂-C

At least one of the ring members X, Y or Z is nitrogen

- R³ trifluoromethyl, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, or CR³ is linked to CR¹⁰ as indicated above to give a 5- or 6-membered ring;
 - R^4 and R^5 (which can be identical or different):
- phenyl or naphthyl, which can be substituted by one or more of the following radicals: halogen, nitro, cyano, hydroxyl, mercapto, amino, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, phenoxy, C₁-C₄-alkylthio, NH(C₁-C₄-alkyl) or N(C₁-C₄-alkyl)₂ or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio; or
- phenyl or naphthyl, which are connected together in the ortho positions by a direct linkage, a methylene, ethylene or ethenylene group, an oxygen or sulfur atom or an SO₂-, NH- or N-alkyl group

C₅-C₇-cycloalkyl;

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- R^6 C_5-C_7 -cycloalkyl, it being possible for these radicals in each case to be substituted one or more times by: C_1-C_4 -alkoxy,
- C₁-C₄-alkyl, C₁-C₄-alkylthio, halogen, hydroxyl, carboxyl, cyano, trifluoromethyl, acetyl, or phenyl which can be substituted one or more times, eg. one to three times, by halogen, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio;
- phenyl or naphthyl, each of which can be substituted by one or more of the following radicals: halogen, R¹⁵, nitro, mercapto, carboxyl, cyano, hydroxyl, amino, C₁-C₄-alkyl, C₁-C₄- haloalkyl, acetyl, C₁-C₄-alkoxycarbonyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy, phenoxy, C₁-C₄-alkylthio, NH(C₁-C₄-alkyl),
- N(C₁-C₄-alkyl)₂, dioxomethylene [sic], dioxoethylene [sic] or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio;

a five- or six-membered heteroaromatic system containing one to three nitrogen atoms and/or one sulfur or oxygen atom, which can carry one to four halogen atoms and/or one to two of the following radicals: C₁-C₄-alkyl, C₁-C₄-haloalkyl,

- C₁-C₄-alkoxy, trifluoromethoxy, C₁-C₄-alkylthio, phenyl or phenoxy, it being possible for the phenyl radicals in turn to carry one to five halogen atoms and/or one to three of the following radicals: C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy and/or C₁-C₄-alkylthio;
- R15 methoxy or ethoxy which carry one of the following radicals: hydroxyl, carboxyl, amino, $NH(C_1-C_4-alkyl)$, $N(C_1-C_4-alkyl)_2$, carboxamide [sic] or $CON(C_1-C_4-alkyl)_2$;

35 W sulfur or oxygen;

- Q C₂-C₄-alkyl, C₃-C₄-alkenyl, C₃-C₄-alkynyl, -S-CH₂-CH₂-, -O-CH₂-CH₂-, it being possible for each of these radicals to be substituted one or more times by: halogen, hydroxyl,
- mercapto, carboxyl, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, or phenyl which can be substituted one or more times, eg. one to three times, by halogen, nitro, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or C₁-C₄-alkylthio
- or Q forms together with R⁶ the following ring systems: 2-indanyl, 3-indanyl, 1,2,3,4-tetrahydro-2-naphthyl,

1,2,3,4-tetrahydro-3-naphthyl, it being possible for the phenyl rings in each case to be substituted by: halogen, hydroxyl, mercapto, carboxyl, cyano, C_1 - C_4 -alkoxy, C_1 - C_4 -alkyl, C_2 - C_4 -alkenyl, C_2 - C_4 -alkynyl, C_3 - C_6 -alkenyloxy, C_1 - C_4 -alkylthio, C_1 - C_4 -haloalkoxy, C_1 - C_4 -alkoxycarbonyl, $NH(C_1$ - C_4 -alkyl), $N(C_1$ - C_4 -alkyl)2 or phenyl.

The compounds of the present invention offer a novel therapeutic

10 potential for the treatment of hypertension, pulmonary
hypertension, myocardial infarct, chronic heart failure, angina
pectoris, acute/chronic kidney failure, renal insufficiency,
cerebral vasospasms, cerebral ischemia, subarachnoid hemorrhages,
migraine, asthma, atherosclerosis, endotoxic shock,

15 endotoxin-induced organ failure, intravascular coagulation,
restenosis after angioplasty, benign prostate hyperplasia, kidney
failure and hypertension caused by ischemia and intoxication,
metastasis and growth of mesenchymal tumors, kidney failure
induced by contrast agents, pancreatitis, gastrointestinal

20 ulcers.

The compounds according to the invention surprisingly also show in some cases an antagonistic action on the neurokinin receptor.

25 This is particularly true of compounds of the formula I where R¹ is

$$-c < 0$$

30

The invention furthermore relates to combination products consisting of endothelin receptor antagonists of the formula I and inhibitors of the renin-angiotensin system. Inhibitors of the 35 renin-angiotensin system are renin inhibitors, angiotensin II antagonists and, in particular, angiotensin converting enzyme (ACE) inhibitors.

The invention further relates to combination products of β 40 blockers and the abovementioned endothelin receptor antagonists, and of mixed ACE/neutral endopeptidase (NEP) inhibitors and the abovementioned endothelin receptor antagonists.

The combination products can be administered in a single 45 pharmaceutical form or else in spatially separate forms. Administration may take place simultaneously or sequentially. The dosage of the combination may be up to the maximum single dos in each case. However, it is also possible to employ 1 wer doses than in the single therapy in each case.

5 These combination products are particularly suitable for the treatment and prevention of hypertension and its sequelae, and for the treatment of heart failure.

The good effect of the compounds can be shown in the following 10 tests:

Receptor binding studies

Cloned human ET_{A} or ET_{B} receptor-expressing CHO cells were 15 employed for binding studies.

Membrane preparation

The ET_A or ET_B receptor-expressing CHO cells were grown in DMEM 20 NUT MIX F₁₂ medium (Gibco, No. 21331-020) with 10% fetal calf serum (PAA Laboratories GmbH, Linz, No. A15-022), 1 mM glutamine (Gibco No. 25030-024), 100 U/ml penicillin and 100 μg/ml streptomycin (Gibco, Sigma No. P-0781). After 48 hours, the cells were washed with PBS and incubated with 0.05% trypsin-containing 25 PBS at 37°C for 5 minutes. Neutralization with medium was then carried out, and the cells were collected by centrifugation at 300 x g.

For the membrane preparation, the cells were adjusted to a 30 concentration of 10⁸ cells/ml of buffer (50 mM tris·HCL buffer, pH 7.4) and then disintegrated by ultrasound (Branson Sonifier 250, 40-70 seconds/constant/output 20).

Binding assays

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For the ET_A and ET_B receptor binding assays, the membranes were suspended in incubation buffer (50 mM tris-ECl, pH 7,4 with 5 mM MnCl₂, 40 μ g/ml bacitracin and 0.2% BSA) at a concentration of 50 μ g of protein per assay mixture, and incubated with 25 pM

- 40 125I-ET₁ (ET_A receptor assay) or 25 pM 125I-ET₃ (ET_B receptor assay) in the presence and absence of test substance at 25°C. The nonspecific binding was determined with 10⁻⁷ M ET₁. Filtration was carried out after 30 min through GF/B glassfiber filters (Whatman, England) in a Skatron cell collector (Skatron, Lier,
- 45 Norway) to separate free and bound radio ligands, and the filters were washed with ice-cold tris-HCl buffer, pH 7.4 with 0.2% BSA. The radioactivity collected on the filters was quantified using a

Packard 2200 CA liquid scintillation counter.

Testing of the ET antagonists in vivo:

5 Male SD rats weighing 250-300 g were anesthetized with amobarbital, artificially ventilated, vagotomized and pithed. The carotid artery and jugular vein were catheterized.

Intravenous administration of 1 μ g/kg ET1 to control animals led 10 to a marked rise in blood pressure, which persisted for a lengthy period.

The test animals received i.v. injections of the test compounds (1 ml/kg) 30 min before administration of ET1. To determine the 15 ET-antagonistic properties, the changes in blood pressure in the test animals were compared with those in the control animals.

Oral testing of the mixed ET_A and ET_B antagonists:

20 Normotensive male rats (Sprague Dawley, Janvier) weighing 250-350 g are pretreated orally with the test substances. 80 minutes later, the animals are anesthetized with urethane, and the carotid artery (for measuring the blood pressure) and the jugular vein (administration of big endothelin/endothelin 1) are 25 catheterized.

After a stabilization period, big endothelin (20 μg/kg, administration volume 0.5 ml/kg) or ET1 (0.3 μg/kg, administration volume 0.5 ml/kg) is given intravenously. The 30 blood pressure and heartrate are recorded continuously for 30 minutes. The marked and long-lasting changes in blood pressure are calculated as area under the curve (AUC). To determine the antagonistic effect of the test substances, the AUC for the animals treated with the substance is compared with the AUC for 35 the control animals.

The compounds according to the invention can be administered orally or parenterally (subcutaneously, intravenously, intramuscularly, intraperitoneally) in a conventional way.

40 Administration may also take place with vapors or sprays through

40 Administration may also take place with vapors or sprays through the nasopharyngeal space.

The dosage depends on the age, condition and weight of the patient and on the mode of administration. As a rule, the daily 45 dose of active substance is about 0.5-50 mg/kg of bodyweight on oral administration and about 0.1-10 mg/kg f bodyweight on parenteral administration.

The novel compounds can be used in conventional solid or liquid pharmaceutical forms, eg. as uncoated or (film-)coated tablets, capsules, powders, granules, suppositories, solutions, ointments, creams or sprays. These are produced in a conventional way. For this purpose, the active substances can be processed with conventional pharmaceutical auxiliaries such as tablet binders, bulking agents, preservatives, tablet disintegrants, flow regulators, plasticizers, wetting agents, dispersants,

10 emulsifiers, solvents, release-slowing agents, antioxidants and/or propellant gases (cf. H. Sucker et al.: Pharmazeutische Technologie, Thieme-Verlag, Stuttgart, 1991). The administration forms obtained in this way normally contain from 0.1 to 90% by weight of active substance.

15

Synthesis examples

Example 1:

- 20 Methyl 2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)3,3-diphenylpropionate
- 7 g (27.5 mmol) of methyl 3,3-diphenyl-2,3-epoxypropionate and 5.5 g (30.2 mmol) of 2-(3,4-dimethoxyphenyl)ethanol were 25 dissolved in 20 ml of dichloromethane and, at room temperature, 5 drops of boron trifluoride etherate were added. The solution was stirred for 2 hours. The solvent was then distilled off, and the residue (10.7 g, 89%) was immediately reacted further.

30 Example 2:

2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-diphenylpropionic acid

- 35 12 g (27.5 mmol) of methyl 2-hydroxy-3-(2-(3,4-dimethoxy-phenyl)ethoxy)-3,3-diphenylpropionate were dissolved in 110 ml of dioxane, and 55 ml of 1 N NaOH solution were added. The mixture was stirred at 80°C for 2 hours. Water was added to the mixture, and the aqueous phase was extracted twice with ether. The aqueous 40 phase was acidified with 1 N aqueous HCl and extracted with ether, the organic phase was dried over magnesium sulfate, and the solvent was distilled off. The residue was recrystallized from ether/n-hexane, and 10.2 g (87%) of colorless crystals were isolated.
- 45 Melting point: 133-135°C

Example 3:

5

2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(3,4-dimethoxy-phenyl)ethoxy)-3,3-diphenylpropionic acid (I-482)

1 g (2.3 mmol) of 2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)3,3-diphenylpropionic acid was introduced into 10 ml of DMF, and

340 mg of NaH (50% suspension) were added. After the mixture had been stirred for 15 minutes, 526 mg of 4-methoxy-6-methyl-

- 10 2-methylsulfonylpyrimidine were added, and the mixture was stirred at room temperature for 3 hours. Water was added to the mixture, which was then extracted with ether. The aqueous phase was acidified with 1 N aqueous HCl, extracted with ether and dried over magnesium sulfate. The solvent was distilled off, the
- 15 residue was purified by MPLC, and 655 mg (52%) of colorless powder were isolated after recrystallization from ether/n-hexane

1H-NMR (200 MHz): 7.2 ppm (10 H, m), 6.8 (3 H, m), 6.2 (1 H, s), 20 6.18 (1 H, s), 3.9 (9 H, m), 3.8 (1 H, m), 3.7 (1 H, m), 2.85 (2 H, tr), 2.2 (3 H, s).

 $EI-MS: M^{+} = 544$

25 Example 4:

Methyl 3,3-di(4-ethylphenyl)-2,3-epoxypropionate

A solution of 15 ml (168 mmol) of methyl chloroacetate and 20 g 30 (84 mmol) of 4,4'-diethylbenzophenone in 20 ml of THF was added dropwise to a suspension of 9.1 g (168 mmol) of sodium methanolate in 80 ml of THF at -10°C. The mixture was warmed to room temperature and stirred for 2 hours. The mixture was added to water and extracted with ether. The organic phase was washed 35 with sodium bicarbonate solution and citric acid solution and dried over magnesium sulfate, and the solvent was distilled off. 15.4 g of a crude oil were isolated and were immediately employed further.

40 Example 5:

Methyl 2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-di-(4-ethyl-phenyl)propionate

45 6 g (19.3 mmol) of methyl 3,3-di(4-ethylphenyl)-2,3-epoxypropionate (crude) and 3.52 g (19.3 mmol) of 2-(3,4-dimethoxyphenyl)ethanol were dissolved in 20 ml of

dichloromethane and, at room temperature, 5 drops of boron trifluoride etherate were added. The solution was stirred for 1.5 hours. The solvent was then distilled off, and the residue, a pale yellow oil (8.66 g, 91%), was immediately reacted further.

5

Example 6:

2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-di(4-ethylphenyl) propionic acid

10

9.2 g (19.3 mmol) of methyl 2-hydroxy-3-(2-(3,4-dimethoxyphenyl)-ethoxy)-3,3-di(4-ethylphenyl)propionate were dissolved in 26 ml of dioxane, and 13 ml of 3 N NaOH solution were added. The mixture was stirred at 60°C for 3 hours. Water was added to the 15 mixture, and the aqueous phase was extracted twice with ether. The aqueous phase was acidified with 1 N aqueous HCl and extracted with ether, the organic phase was dried over magnesium sulfate, and the solvent was distilled off. 6.5 g (71%) of a yellowish oil were isolated and were immediately reacted further.

20

Example 7:

2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(3,4-dimethoxy-phenyl)ethoxy)-3,3-di(4-ethylphenyl)propionic acid (I-116)

25

1.8 g (3.8 mmol) of 2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-di(4-ethylphenyl)propionic acid were introduced into
20 ml of DMF, and 554 mg of NaH (50% suspension) were added.
After the mixture had stirred for 15 minutes, 855 mg (4.2 mmol)
30 of 4-methoxy-6-methyl-2-methylsulfonylpyrimidine were added, and
the mixture was stirred at room temperature for 3 hours. Water
was added to the mixture, which was then extracted with ether.
The aqueous phase was acidified with 1 N aqueous HCl, extracted
with ether and dried over magnesium sulfate. The solvent was
35 distilled off and 540 mg (23%) of colorless powder were isolated
after recrystallization from ether/n-hexane.

1H-NMR (200 MHz): 7.0-7.4 ppm (10 H, m), 6.8 (2 H, d), 6.2 (1 H, s), 6.15 (1 H, s), 3.9 (3 H, s), 3.8 (3 H, s), 3.7 (1 H, m), 3.5 40 (1 H, m), 2.9 (2 H, tr), 2.6 (4 H, m), 2.3 (3 H, s), 1.2 (6 H, m).

 $EI-MS: M^+ = 600$

Example 8:

2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-phenyl-(2E)-propenoxy)-3,3-diphenylpropionic acid (I-27)

1.12 g (3 mmol) of 2-hydroxy-3-(3-phenyl-(2E)-propenoxy)3,3-diphenylpropionic acid were added to a suspension of 432 mg
(9 mmol, 50%) of NaH in 20 ml of DMF, and the mixture was stirred at room temperature for 10 minutes. 614 mg (3.3 mmol) of

- 10 4,6-dimethyl-1-methylsulfonylpyrimidine were added, and the mixture was stirred for 16 hours, then diluted with 200 ml of water, acidified with 1 N hydrochloric acid and extracted with ether. The ether phase was extracted with 1 N sodium hydroxide solution, the aqueous phase was again acidified, and the product
- 15 was extracted with ether. The organic phase was dried over magnesium sulfate and filtered, and the solvent was distilled off. The residue was recrystallized from ether/hexane, and 927 mg (65%) of crystalline product were isolated.
- 20 Melting point: 128-133°C

1H-NMR (200 MHz): 7.3 ppm (15 H, m), 6.74 (1 H, s), 6.7 (1 H, d), 6.3 (1 H,s), 6.2 (1 H, dtr, 4.3 (1 H, dd), 4.1 (1 H, dd), 2.3 (6 H, s).

25

 $EI-MS: M^{+} = 480$

Example 9:

30 4,6-dimethyl-1-methylthiopyrimidine

15 g (107 mmol) of 4,6-dimethyl-1-mercaptopyrimidine and 5.14 g of NaOH were dissolved in 175 ml of water. 12 ml (128 mmol) of dimethyl sulfate were added dropwise to this mixture at room 35 temperature over the course of 10 minutes. After 1 hour, the aqueous phase was extracted 3 times with ether and dried over magnesium sulfate, and the solvent was distilled off. 15.9 g (97%) of crude product were isolated.

40 ¹H-NMR (270 MHz): 6.7 ppm (1 H, s), 2.5 (3 H,s), 2.3 (6 H,s).

Example 10:

4,6-dimethyl-1-methylsulfonylpyrimidine

45
15.9 g (103 mmol) of 4,6-dimethyl-1-methylthiopyrimidine were introduced into 120 ml of dichloromethane and 110 ml of water.

Chlorin gas was passed into saturation (yellow coloration) at 0°C. After the conversion was complete, excess chlorine was driven out with nitrogen, the aqueous phase was extracted with dichloromethane, and the collected organic phases were dried over 5 magnesium sulfate. The solution was concentrated, and the product (14 g, 73%) was crystallized by adding ether.

Melting point: 79-80°C

10 ¹H-NMR (270 MHz): 7.2 ppm (1 H, s), 3.4 (3 H, s), 2.6 (6 H, s).

Example 11:

Methyl (S)-2-hydroxy-3-methoxy-3,3-diphenylpropionate

54.4 g (200 mmol) of (S)-2-hydroxy-3-methoxy-3,3-diphenyl-propionic acid were introduced with 10.8 g (200 mmol) of sodium methoxide into 300 ml of DMF. 21 ml (210 mmol) of dimethylsulfate were added dropwise to this suspension over 15 minutes, during which the temperature rises to 50°C and the suspension becomes mobile. The mixture was stirred overnight and then added to 1.5 l of water and ice. The aqueous phase was extracted twice with 500 ml of ether, and the ether phase was in turn washed with 200 ml of water twice. The organic phase was dried over magnesium sulfate, the desiccant was filtered off, and the solvent was distilled off. 55.8 g of an oil were isolated and were immediately processed further.

Example 12:

30

Methyl (S)-2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-diphenylpropionate

immediately for the subsequent synthesis.

Variant A:

35

27.9 g of methyl (S)-2-hydroxy-3-methoxy-3,3-diphenylpropionate (100 mmol) were mixed with 1 g of p-toluenesulfonic acid and 18.2 g of 2-(3,4-dimethoxyphenyl)ethanol (100 mmol) in a flask and heated to 60°C. The pressure in the flask is reduced in order to distill out the methanol which is produced, and the mixture is stirred at 60°C for a further 5 hours. For workup, the mixture is cooled and diluted with 300 ml of ether, and the organic phase is washed first with sodium bicarbonate solution and then several times with water. It is then dried with magnesium sulfate, and 45 the desiccant is filtered off and the solvent is distilled off. A residue of 43 g of oil was isolated and could be employed

Variant B:

27.9 g of methyl (S)-2-hydroxy-3-methoxy-3,3-diphenylpropionate
5 (100 mmol), 1 g of p-toluenesulfonic acid and 18.2 g (100 mmol)
of 2-(3,4-dimethoxyphenyl)ethanol were dissolved in 75 ml of
dichloromethane in a flask. The solution was heated and the
dichloromethane was distilled out while simultaneously adding
dichloromethane dropwise, in order to distill out the methanol
10 which was produced, and the mixture was stirred at 60°C for a
further 5 hours. For workup, the mixture is cooled and diluted
with 300 ml of ether, and the organic phase is washed first with
sodium bicarbonate solution and then several times with water. It
is then dried with magnesium sulfate, and the desiccant is
15 filtered off and the solvent is distilled off. A residue of 43 g
of oil was isolated and could be used immediately in the
subsequent synthesis.

Example 13:

20

(S)-2-Hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-diphenyl-propionic acid

255 ml of 1 N sodium hydroxide solution were added to a solution
25 of 74 g (170 mmol) of methyl (S)-2-hydroxy-3-(2-(3,4-dimethoxy-phenyl)ethoxy-3,3-diphenylpropionate in 510 ml of dioxane, and the suspension was stirred at 50°C for two hours. The mixture was diluted with 2.5 l of water and neutralized with citric acid. The aqueous phase was extracted twice with 500 ml of ether. The
30 organic phase was then washed with water, dried over magnesium sulfate and filtered, and then the ether was distilled off. The residue was purified by crystallization from ether/n-hexane, and 70 g of crystals were isolated.

35 ¹H-NMR (200 MHz): 7.3 ppm (10 H, m), 6.8 (1 H, dbr), 6.7 (1 H, dbr), 6.6 (1 H, sbr), 5.0 (1 H, s), 3.9 (3 H, s), 3.85 (3 H, s), 3.6 (1 H, dt), 3.4 (1 H, OH), 3.2 (1 H, dt), 2.8 (2 H, t).

 $[\alpha]^{20} = 8.3$ (1; ethanol)

40

Example 14:

2-(4,6-(Dimethylpyrimidin-2-yloxy)-3-(2-(3,4-dimethoxyphenyl)-ethoxy-3,3-diphenylpropionic acid (I-445)

45 and

(S)-2-(4,6-dimethylpyrimidin-2-yloxy)-3-(2-(3,4-dimethoxyphenyl)-ethoxy)-3,3-diphenylpropi nic acid (I-445 (S) enantiomer)

55 g (130 mmol) of 2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy-3,3-diphenylpropionic acid, dissolved in 150 ml of DMF, were added over the course of 15 minutes to 9 g (390 mmol) of lithium 5 amide in 35 ml of DMF. 25 g (137 mmol) of 2-methylsulfone-4,6-dimethylpyrimidine [sic], dissolved in 75 ml of DMF, were slowly added dropwise to this, and the mixture was stirred at room temperature for 18 hours. For workup, the mixture was added to 2 l of ice-water and citric acid for neutralization. The 10 crystals which separated out were filtered off with suction and washed with water. The moist crystals were dissolved in dichloromethane, the solution was dried over magnesium sulfate and filtered, and the solvent was distilled off. The oily residue was taken up in ether and extracted with 130 ml of 1 N sodium 15 hydroxide solution, and the aqueous phase was neutralized with 130 ml of 1 N hydrochloric acid, whereupon crystals separated out. 64 g of product were isolated after drying.

1H-NMR (200 MHz): 7.3 ppm (10 H, m), 6.7 (4 H, m), 6.3 (1 H, s), 20 3.9 (3 H, s), 3.85 (3 H, s), 3.7 (1 H, dt), 3.6 (1 H, dt), 2.8 (2 H, t), 2.3 (6 H, s).

Melting point: 125-130°C decomposition EI-MS: M⁺ = 528

25

(S)-2-(4,6-dimethylpyrimidin-2-yloxy)-3-(2-(3,4-dimethoxyphenyl)-ethoxy-3,3-diphenylpropionic acid was prepared in a similar way from (S)-2-hydroxy-3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-diphenylpropionic acid and 2-methylsulfone-4,6-dimethyl-30 pyrimidine [sic] in the presence of lithium amide.

 $[a]^{20} = 111 (1; ethanol)$

Example 15:

35

The following compounds were prepared as in Example 8

2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-methoxyphenyl)-ethoxy)-3,3-di(4-ethylphenyl)propionic acid (I-147)

40

Melting point: 150-155°C

 $EI-MS: M^{+} = 570$

2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)45 3-(2-(4-chlorophenyl)ethoxy)-3,3-diphenylpropionic acid (I-651)

Melting point: 150-152°C

```
EI-MS: M^{+} = 546
  2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-chlorophenyl)ethoxy)-
  3,3-diphenylpropionic acid (I-713)
 5
  Melting point: 108°C Decomposition
  EI-MS: M^+ = 502
   2-(4,6-dimethoxy-2-pyrimidinyloxy)-3-(2-(4-chlorophenyl)ethoxy)-
10 3,3-diphenylpropionic acid
   Melting point: 165-167°C
   EI-MS: M^{+} = 534
15 2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-chlorophenyl)-
   ethoxy)-3,3-diphenylpropionic acid (I-746)
   Melting point: 93-98°C
   EI-MS: M^{+} = 518
20
   2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-methoxyphenyl)ethoxy)-
   3,3-di(4-ethylphenyl)propionic acid (I-148)
   Melting point: 130-133°C
25 EI-MS: M^+ = 554
   2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-methylphenyl)-
   ethoxy)-3,3-di(4-chlorophenyl)propionic acid (I-710)
30 Melting point: 90-100°C
   EI-MS: M^{+} = 566
    2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3,3-diphenylpropoxy)-
    3,3-di(4-chlorophenyl)propionic acid
 35
    <sup>1</sup>H-NMR(200 MHz): 7.3 ppm (18 H, m), 6.25 (1 H, s), 6.0 (1 H, s),
    4.0 (1 H, tr), 3.8 (3 H, s), 3.4 (2 H, m), 2.2 (5 H, m).
    EI-MS: M^{+} = 642
 40
    2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(3,4-dimethoxy-
    phenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic acid (I-699)
    Melting point: 100-110°C
 45 EI-MS: M^+ = 612
   2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(2-methoxyphenyl)-
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```
28
   ethoxy)-3,3-di(4-chl rophenyl)propionic acid (I-487)
   Melting point: 85-90°C
   EI-MS: M^+ = 582
 5
   2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-
   (2-(3-methoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic acid
   (I-486)
10 Melting point: 190-195°C
   EI-MS: M^{+} = 610
   2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-
   (2-phenylethylthio)-3,3-di(4-chlorophenyl)propionic acid
15
   Melting point: 173-175°C
   <sup>1</sup>H-NMR (200): 7.0-7.4 ppm (13 H, m), 6.0 (1 H, s), 4.7 (2 H, tr),
   3.8 (3 H, s), 3.1 (2 H, tr), 2.5 (4 H, m)
   2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-
   (2-(3,4-dimethoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic
   acid (I-635)
25 Melting point: 100-110°C
   EI-MS: M^{+} = 640
   2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-
   (2-(3,5-dimethoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic
30 acid (I-593)
  Melting point: 90-100°C
  EI-MS: M^+ = 640
```

35 2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-(2-(2-methoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic acid (I-164)

Melting point: 135-145°C

40 EI-MS: M+ = 610

20

2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-(3,3-diphenylpropoxy)-3,3-di(4-chlorophenyl)propionic acid

45 Melting point: 125-127°C EI-MS: $M^+ = 670$

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2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-3-
    (3,3-diphenylpropoxy)-3,3-di(4-chlorophenyl)propionic acid
    Melting point: 135-140°C
  5 \text{ EI-MS: } M^+ = 668
    2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-3-
    (2-phenylethylthio)-3,3-di(4-chlorophenyl)propionic acid
 10 Melting point: 135-140°C
   <sup>1</sup>H-NMR (200): 7.0-7.5 ppm (13 H, m), 5.9 (1 H, s), 3.9 (3 H, s),
    2.6-2.8 (8 H, m), 2.1 (2 H, m).
 15 2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-3-
    (2-(2-methoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic acid
   Melting point: 105-115°C
   EI-MS: M^{+} = 608
20
   2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-3-
   (2-(3-methoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)propionic acid
   Melting point: 110-120°C
25 EI-MS: M^+ = 608
   2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-
   3-(2-(4-dimethylaminophenyl)ethoxy)-3,3-di(4-chlorophenyl)-
   propionic acid
30
   Melting point: 135-140°C
   EI-MS: M^{+} = 621
   2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-
35 3-(2-(3,4-dimethoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)-
   propionic acid
   Melting point: 125-130°C
   EI-MS: M^{+} = 638
40
   2-(4-methoxy-6,7-dihydro-5H-cyclopentapyrimidin-2-yloxy)-
   3-(2-(3,5-dimethoxyphenyl)ethoxy)-3,3-di(4-chlorophenyl)-
   propionic acid
45 Melting point: 125-130°C
  EI-MS: M^{+} = 638
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2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-
    3-(2-(4-methylphenyl)ethoxy)-3,3-diphenylpropionic acid (I-370)
    Melting point: 128-130°C
  5 EI-MS: M^{+} = 526
    2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-phenylethoxy)-
    3,3-diphenylpropionic acid (I-719)
 10 Melting point: 155°C Decomposition
    EI-MS: M^{+} = 484
    2-(4,6-dimethoxy-2-pyrimidinyloxy)-3-(2-phenylethoxy)-
    3,3-diphenylpropionic acid
 15
    Melting point: 203°C Decomposition
    EI-MS: M^{+} = 500
    2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-phenylethoxy)-3,3-diphenyl
 20 propionic acid (I-720)
    Melting point: 130-133°C
   EI-MS: M^{+} = 468
25 2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-
   3-(2-phenylethoxy)-3,3-diphenylpropionic acid (I-657)
   Melting point: 138-142°C
   EI-MS: M^+ = 512
30
   2-(4,6-dimethoxy-2-pyrimidinyloxy)-3-(2-(4-methylphenyl)-
   ethoxy)-3,3-diphenylpropionic acid
   Melting point: 155-158°C
35 EI-MS: M+ = 514
   2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-methylphenyl)-
   ethoxy)-3,3-diphenylpropionic acid (I-465)
40 Melting point: 145-147°C
  EI-MS: M^{+} = 498
  2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-(4-methoxyphenyl)-
  propoxy)-3,3-diphenylpropionic acid (I-554)
45
  Melting point: 160-165°C
  EI-MS: M+ = 528
```

```
2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(4-methoxyphenyl)propoxy)-
     3,3-diphenylpropionic acid (I-555)
   5 Melting point: 165-170°C
     EI-MS: M^{+} = 512
     2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-(3,4,5-trimethoxy-
    phenyl)propoxy)-3,3-diphenylpropionic acid (I-335)
  10
    <sup>1</sup>H-NMR (200): 7.2-7.4 ppm (10 H, m), 6.3 (2 H, s), 6.2 (2 H, s),
    3.8 (3 H, s), 3.75 (10 H, s), 3.4 (2 H, m), 2.6 (2 H, m), 2.25
     (3 H, s), 1.9 (2 H, m).
 15 EI-MS: M^+ = 588
    2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(3,4,5-trimethoxyphenyl)-
    propoxy)-3,3-diphenylpropionic acid (I-336)
 20 <sup>1</sup>H-NMR (200): 7.2-7.5 ppm (10 H, m), 6.6 (1 H, s), 6.3 (3 H, s),
    3.8 (9 H, s), 3.4 (2 H, m), 2.6 (2 H, m), 2.3 (6 H, s), 1.9 (2 H,
    m).
    EI-MS: M^+ = 572
 25
    2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-(2-chlorophenyl)-
    propoxy)-3,3-diphenylpropionic acid (I-383)
   <sup>1</sup>H-NMR (200): 7.1-7.5 ppm (14 H, m), 6.24 (1 H, s), 6.23 (1 H, s),
30 3.8 (3 H, s), 3.4 (2 H, m), 2.75 (2 H, m), 2.25 (3 H, s), 1.9
    (2 H, m).
   EI-MS: M^{+} = 532
35 2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(2-chlorophenyl)-
   propoxy)-3,3-diphenylpropionic acid (I-384)
   Melting point: 172-178°C
   EI-MS: M^+ = 516
   2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(4-chlorophenyl)-
   propoxy)-3,3-diphenylpropionic acid (I-251)
   <sup>1</sup>H-NMR (200): 7.0-7.4 ppm (14 H, m), 6.6 (1 H, s), 6.3 (1 H, s),
45 3.5 (2 H, m), 2.7 (2 H, m), 2.3 (6 H, s), 1.9 (2 H, m).
   EI-MS: M^+ = 516
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2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(3,4-dimethoxyphenyl)-
   propoxy)-3,3-diphenylpropionic acid (I-490))
   <sup>1</sup>H-NMR (200): 7.1-7.5 ppm (10 H, m), 6.74 (1 H, s), 6.7 (3 H, s),
 5 6.3 (1 H, s), 3.8 (6 H, s), 3.5 (2 H, m), 2.7 (2 H, m), 2.3 (6 H,
   s), 1.9 (2 H, m).
   EI-MS: M^{+} = 542
10 2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-propoxyphenyl)-
   ethoxy)-3,3-diphenylpropionic acid (I-69)
   Melting point: 115-119°C
   EI-MS: M^{+} = 542
15
   2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-butoxyphenyl)-
   ethoxy)-3,3-diphenylpropionic acid (I-71)
   Melting point: 118-122°C
20 EI-MS: M^+ = 556
   2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-butoxyphenyl)-
   ethoxy)-3,3-diphenylpropionic acid (I-70)
25 Melting point: 122-125°C
   EI-MS: M^{+} = 540
   2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-phenyl-(2E)-
   propenoxy)-3,3-diphenylpropionic acid (I-44)
30
   Melting point: 171-174°C
   EI-MS: M^{+} = 496
   2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-(2-methylphenyl)-
35 propoxy)-3,3-diphenylpropionic acid (I-107)
   Decomposition: 144-146°C
   EI-MS: M^+ = 512
40 2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(2-methylphenyl)-
   propoxy)-3,3-diphenylpropionic acid (I-90)
   Decomposition: 173-176°C
  EI-MS: M^{+} = 496
45
  2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-(4-methylphenyl)-
   propoxy)-3,3-diphenylpropionic acid (I-363)
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Decomposition: 158-161°C
        EI-MS: M^{+} = 512
      5 2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-(4-methylphenyl)-
        propoxy)-3,3-diphenylpropionic acid (I-346)
        Decomposition: 163-167°C
        EI-MS: M^{+} = 496
     10
        2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-methylthiophenyl)
        ethoxy)-3,3-diphenylpropionic acid (I-246)
        Decomposition: 136-138°C
     15 EI-MS: M^+ = 530
        2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-methylthiophenyl)-
        ethoxy)-3,3-diphenylpropionic acid (I-217)
     20 Decomposition: 166-169°C
        EI-MS: M^{+} = 514
        2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-ethoxy-3-methoxy-
        phenyl)ethoxy)-3,3-diphenylpropionic acid (I-145)
     25
        Decomposition: 141-145°C
        EI-MS: M^{+} = 558
        2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-ethoxyphenyl)
     30 ethoxy)-3,3-diphenylpropionic acid (I-510)
        Decomposition: 131-135°C
        EI-MS: M^{+} = 528
     35 2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-i-propylphenyl)
        ethoxy)-3,3-diphenylpropionic acid (I-705)
        <sup>1</sup>H-NMR (200 MHz, DMSO): 7.0-7.35 ppm (14 H, m), 6.35 (1 H, s), 6.1
        (1 H, s), 4.0 (1 H, m), 3.9 (3 H, s), 3.8 (3 H, s), 3.7 (1 H, m),
     40 2.9 (3 H, m), 2.2 (3 H, s), 1.1 (6 H, d).
        EI-MS: M^{+} = 526
        2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(3,4-methylenedioxy-
     45 phenyl)ethoxy)-3,3-diphenylpropionic acid (I-568)
Decomposition: 146-148°C
```

EI-MS: $M^+ = 528$

2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-(2-(3,4-methylenedioxyphenyl)ethoxy)-3,3-diphenylpropionic acid 5 (I-501)

Decomposition: 145-149°C

 $EI-MS: M^{+} = 556$

2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)3-(2-(4-ethoxy-3-methoxyphenyl)ethoxy)-3,3-diphenylpropionic acid
(I-735)

1H-NMR (270 MHz, DMSO): 7.1-7.4 ppm (10 H, m), 6.85 (2 H, m), 6.7
15 (1 H, d), 6.1 (1 H, s), 4.6 (2 H, tr), 4.0 (3 H, m), 3.85 (3 H, s), 3.75 (3 H, s), 3.65 (1 H, m), 3.05 (2 H, tr), 2.8 (2 H, m), 1.25 (3 H, m).

 $EI-MS: M^+ = 586$

20

2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-(2-(4-ethoxyphenyl)ethoxy)-3,3-diphenylpropionic acid (I-407)

1H-NMR (270 MHz, DMSO): 7.1-7.4 ppm (12 H, m), 6.8 (2 H, d), 6.1
25 (1 H, s), 4.65 (2 H, tr), 3.95 (3 H, m), 3.8 (3 H, s), 3.65 (1 H, m), 3.05 (2 H, tr), 2.8 (2 H, m), 1.25 (3 H, m).

EI-MS: $M^{+} = 556$

30 2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-ethoxy-3-methoxyphenyl)
ethoxy)-3,3-diphenylpropionic acid (I-146)

Decomposition: 129-134°C

 $EI-MS: M^{+} = 542$

35

2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(3,4-methylenedioxy-phenyl)ethoxy)-3,3-diphenylpropionic acid (I-569)

1H-NMR (270 MHz, DMSO): 7.1-7.4 ppm (10 H, m), 6.9 (1 H, s), 6.8
40 (2 H, m), 6.7 (1 H, d), 6.2 (1 H, s), 6.0 (2 H, s), 3.95 (3 H, m), 3.65 (1 H, m), 2.8 (2 H, m), 2.3 (6 H, s).

 $EI-MS: M^+ = 512$

45 2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-ethoxyphenyl)ethoxy)-3,3-diphenylpropionic acid (I-473)

Decomposition: 145-148°C

 $EI-MS: M^{+} = 512$

5 2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)-3-(2-(4-i-propylphenyl)ethoxy)-3,3-diphenylpropionic acid (I-604)

¹H-NMR (270 MHz, DMSO): 7.1-7.4 ppm (14 H, m), 6.1 (1 H, s), 4.6 (2 H, tr), 3.9 (1 H, m), 3.8 (3 H, s), 3.6 (1 H, m), 3.0 (2 H, 10 tr), 2.8 (3 H, m), 1.1 (6 H, d).

 $EI-MS: M^{+} = 554$

2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-i-propylphenyl)-15 ethoxy)-3,3-diphenylpropionic acid (I-672)

æ

Decomposition: 156-160°C EI-MS: M+ = 510

20 2-(4-methoxy-5,6-dihydrofuro(2,3d)-2-pyrimidinyloxy)3-(2-(4-methoxyphenyl)ethoxy)-3,3-di(4-methylphenyl)propionic acid (I-517)

1H-NMR (200 MHz, DMSO): 7.0-7.3 ppm (10 H, m), 6.8 (2 H, d), 6.0
25 (1 H, s), 4.6 (2 H, tr), 3.85 (3 H, s), 3.8 (1 H, m), 3.7 (3 H, s), 3.6 (1 H, m), 3.0 (2 H, tr), 2.8 (2 H, tr), 1.1 (6 H, d).

 $EI-MS: M^{+} = 570$

30 2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(2-(4-methoxyphenyl)-ethoxy)-3,3-diphenylpropionic acid (I-622)

¹H-NMR (270 MHz, DMSO): 7.1-7.4 ppm (12 H, m), 6.8 (2 H, d), 6.4 (1 H, s), 6.1 (1 H, s), 4.0 (1 H, m), 3.7 (3 H, s), 3.7 (1 H, m), 35 2.8 (2 H, tr), 2.3 (3 H, s).

 $EI-MS: M^{+} = 514$

2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(2-(4-methoxyphenyl)ethoxy)-40 3,3-diphenylpropionic acid (I-585)

¹H-NMR (200 MHz, DMSO): 7.1-7.4 ppm (12 H, m), 6.8 (3 H, m), 6.1 (1 H, s), 4.0 (1 H, m), 3.7 (3 H, s), 3.6 (1 H, m), 2.8 (2 H, tr), 2.3 (6 H, s).

15

 $EI-MS: M^{+} = 498$

36 2-(4-methoxy-6-methyl-2-pyrimidinyloxy)-3-(3-phenylpropoxy)-3,3-diphenylpropionic acid (I-499) Decomposition: 153-155°C $5 \text{ EI-MS: } M^+ = 498$ 2-(4,6-dimethyl-2-pyrimidinyloxy)-3-(3-phenylpropoxy)-3,3-diphenylpropionic acid (I-500)

10 Decomposition: 148-151°C EI-MS: $M^{+} = 482$

The compounds listed in Table 1 can be prepared in a similar way or as described in the general part.

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R4 X	$ \begin{array}{c c} c & cH & O \\ \hline & X \\ R^5 & R^1 \end{array} $
	R6 QW

Table I [sic]

															Г
Α	S	0	0	0	0	0	0	0	0	0	0	0	S	0	0
Y	z	z	Z	z	Z	z	z	ᆼ	z	Z	z	z	z	z	z
×	Z	Z	z	Z	Z	z	Z	z	Z	z	Z	Z	z	Z	z
2	СН	СН	СН	СН	СН	Z	СН	Z	Z	СН	CH2-CH2-CH2-C	O-CH2-CH2-C	CH2-CH2-CH2-C	0- СН2-СН2-С	CH
\mathbb{R}^3	Me	Mc	ОМе	Me	Me	Me	Me	Me	Me	Me	CH2-CF	0-CH ₂	CH2-CF	0-CH ₂	Me
\mathbb{R}^2	ОМе	CF3	OMe	OMe	Mc	Me	Мe	Me	ethyl	ethyl	ОМе	OMe	OMe	OMe	Me
R6	phenyl	phenyl	phenyl	phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	3,4-di-Cl-phenyl	phenyl	phenyl	phenyl	phenyl	phenyi	phenyl	phenyl	4-SMe-phenyl
0	· CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	-Сн ₂ -Сн ₂ -	- CH ₂ -C(CH ₃) ₂ -	· CH ₂ -CH ₂ · CH ₂ ·	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH=CH- CH ₂ -	- CH=CH- CH ₂ -	- CH=CH- CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -
R4, R5	phenyl	phenyl	4-Br-phenyl	phenyl	4-CI-phenyl	4-CI-phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyi	4-Et-phenyl
RI	СООН	COOMe	НООО	СООН	СООН	COOH	СООН	COOH	СООН	НООЭ	нооэ	Н000	H000	COOE	H000
Š	1-1	1-2	1-3	4-	1-5	9 <u>-</u> 1	1-7	1-8	1-9	1-10	1-11	1-12	1-13	1-14	1-15

No.	RI	R4, R5	0	R6	R ²	R ³	2	×	Y	≱
1-16	НООО	4-Et-phenyl	- CH ₂ -CH ₂ -	4-SMc-phenyl	Me	Me	Z	Z	z	0
1-12	COOMe	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	Me	СН	N	z	0
1-18	COOE	phenyi	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	СН	Z	z	S
I-19	tetrazole [sic]	phenyl	· CH ₂ ·CH ₂ ·	4-OMe-phenyl	ОМе	0-СН2	0- СН ₂ -СН ₂ -С	z	z	0
1-20	СООН	phenyl	- C(CH ₃) ₂ -CH ₂ -	4-OMe-phenyl	OMe	0- CH ₂	0- СН2-СН2-С	z	z	0
1-21	СООН	phenyl	- CH ₂ - C(CH ₃) ₂ -	4-OMe-phenyl	OMe	0-CH ₂	O- CH2-CH2-C	Z	z	0
1-22	НООО	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-OMe-phenyl	ОМе	0- CH2	0- CH2-CH2-C	z	z	
1-23	НООО	4-CI-phenyl	· CH ₂ -CH ₂ · CH ₂ -	3,4-di-OMe-phenyl	ОМе	Me	СН	Z	z	0
1-24	H000	4-Br-phenyl	· CH ₂ -CH ₂ -	4-OMe-phenyl	ОМе	OMe	СН	Z	z	0
1-25	НООО	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyi	OMe	Me	Z	z	z	0
1-26	НООО	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	Z	Z	GH	0
1-27	НООО	phenyl	- CH=CH· CH ₂ -	phenyl	Me	Me	СН	z	z	0
1-28	H000	phenyl	- CH=CH- CH ₂ -	phenyl	Me	Me	Z	z	z	
1-29	НООО	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	ethyl	Me	Z	z	z	0
1-30	НООО	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	CH ₂ - CH	CH2-CH2-CH2-C	Z	z	S
1-31	НООЭ	4-Et-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	ОМе	0- CH ₂	0- CH ₂ -CH ₂ -C	Z	z	0
1-32	НООО	4-Et-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	ОМе	Me	СН	z	z	0
1-33	COOE	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	O-CH ₂	0- CH ₂ -CH ₂ -C	z	z	0
1-34	НООО	phenyl	-CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	0- CH ₂	0- CH2-CH2-C	Z	z	S
1-35	COOMe	phenyl	- C(CH ₃) ₂ -CH ₂ -	3,4-di-OMe-phenyl	ОМе	Me	Z	z	품	S
1-36	КООН	phenyl	- C(CH ₃) ₂ -CH ₂ -	3,4-di-OMe-phenyl	ethyl	Me	СH	z	z	
1-37	СООН	4-Br-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	CF3	Me	СН	Z	z	0
1-38	HOOO	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-OMe-phenyl	Me	Me	Z	Z	z	0
1-39	соон	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-OMe-phenyl	ethyl	Me	СН	z	z	0

	ja	D4 D5		R6	R2	R3	Z	×	, ,	≽
. 60	1000	n, n	י אין	3 4_di_Me_nhenvl	OMe	Me	EH.	z	z	0
Q4-	מסטו	puenyi	· Cu2-Cu2-	2,4-di-ma-phoni);	5763		E	z	z	C
1-41	H000	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyi	SMC		3	1	T	Ţ
1-42	H000	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyi	Me		z		_	J
I-43	HOOO	phenyl	· CH=CH· CH ₂ ·	phenyl	CF3	Mc	СН	z	z	
1-44	COOH	phenyl	· CH=CH· CH›-	phenyl	OMe	Me	СН	z	z	0
1-45	НО00	phenyl	· CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	cthyl	Me	СН	z	z	S
1-46	COOBzi	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ОМе	CH ₂ - CH	CH2- CH2-CH2-C	z	z	0
1-47	НООЭ	4-Et-phenyl	- CH ₂ -CH ₂ -	3-OMc-phenyl	Mc	Me	Z	z		٥
1-48	H000	4-Et-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	ethyl	Me	CH	z	\exists	٥
Τ	НООЭ	4-F-phenyl	-CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	0-CH2-CH2-C	-CH ₂ -C	z	z	
1-50	H000	phenyl	- C(CH ₃) ₂ -CH ₂ -	3,4,5-tri-OMe-phenyl	CF3	Me	СН	z	z	
1-51	H000	phenyl	-CH ₂ -CH ₂ -	3-Me-4-Et-phenyl	OMe	CF3	СH	z	z	٥
1-52	H000	phenyl	- CH ₂ -CH ₂ -	3-Me-4-Et-phenyl	ОМе	Me	CH	z	z	ी
1-53	H000	4-F-phenyl	- CH ₂ -CH ₂ -	4-Br-phenyl	Me	Me	z	z	z	
1-54	H000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	Me	СН	z		٥
1-55	H000	4-Cl-phenyl	· CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	СН	z	\neg	
1-56	Н000	phenyl	-CH ₂ -CH ₂ -	4-Br-phenyl	Me	Me	z	z	_	0
I-57	НООЭ	phenyl	-CH ₂ -CH ₂ -	3-Br-phenyl	ethyl	Mc	СН	z	z	S
1-58	Н000	phenyi	- CH ₂ -CH ₂ -	2-Me-phenyl	OMe	CH ₂ - CH	CH2- CH2-CH2-C	z	z	٥
1-59	H000	phenyl	· CH=CH- CH ₂ -	4-Me-phenyl	OMe	CH ₂ - CH	CH2-CH2-C	z	z	
09-1	СООН	phenyl	· CH=CH· CH ₂ -	4-Me-phenyl	OMe	0- CH ₂	O- CH2-CH2-C	z	z	0
1-61	H083	4-F-phenyl	· CH ₂ -CH ₂ -	3-Me-phenyl	ОМе	0- CH ₂	O- CH2-CH2-C	z	z	
1-62	H000	phenyl	- CH ₂ -CH ₂ -	3-Me-4-SMe-phenyl	CF3	Me	СН	z	z	
1-63	H000	4-Et-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	OMe	Me	СH	z	z	0
1-64	COOH	4-Et-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	Me	Me	품	z	z	0

,, , ,,) Y	4	4	7	<	-
pnenyi	· CH ₂ ·CH ₂ -	4-SMc-phenyl	Μe	ОМе	H	z	0 Z
3-OMe-phenyl	· CH ₂ -CH ₂ -	4-SMe-phenyl	OMe	Me	СН	z	0 N
ohenvl	-0- CH ₂ -CH ₂ -	4-SMe-phenyl	₩	Me	СН	z	о z
phenyi	- CH ₂ -CH ₂ -	4-n-propoxy-phenyl	Me	Me	СН	z	o z
phenyl	- CH ₂ -CH ₂ -	4-n-propoxy-phenyl	OMe	Me	СН	z	<u>о</u> z
phenyl	-CH ₂ -CH ₂ -	4-n-butoxy-phenyl	Me	Me	СН	z	0 Z
phenyl	· CH ₂ -CH ₂ -	4-n-butoxy-phenyl	OMe	Me	СН	z	寸
phenyl	-0- CH ₂ -CH ₂ -	4-SMe-phenyl	Me	Me	СН	z	_
phenyi	-0- CH ₂ -CH ₂ -	4-SMe-phenyi	ethyl	Me	СН	z	T
phenyl	- CH ₂ -CH ₂ - CH ₂ -	2-Mc-phenyl	cthyl	Me	СН	z	7
phenyl	- CH ₂ -CH ₂ -	2-Me-phenyl	OMe	CH ₂ - Cl	CH2- CH2-CH2-C	z	o z
phenyl	-CH ₂ -CH ₂ -	2-Me-4-SMe-phenyl	OMe	CH2-CI	CH2-CH2-CH2-C	z	o z
phenyl	- C(CH ₃) ₂ -CH ₂ -	4-SMe-phenyl	OMe	0-CH ₂	0- CH2-CH2-C	z	o z
phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	CF3	Me	픙	z	
phenyl	- CH=CH- CH ₂ -	4-Me-phenyl	Me	Me	Z	z	寸
phenyl	- CH=CH- CH ₂ -	4-Me-phenyl	ethyi	Me	СН	z	7
phenyl	· CH ₂ -CH ₂ -	4-(di-Me-amino)-phenyl	ОМе	O- CH.	0-CH2-CH2-C	z	
4-CI-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	Me	GH	z	1
4-Et-phenyl	-CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ethyl	Me	СН	z	o z
4-Et-phenyl	-CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	0-CH	O- CH2-CH2-C	z	z
3-OMe-phenyl	-CH ₂ -CH ₂ -	4-OEt-3-OMc-phenyl	OMe	Mc	ਲ	z	
phenyl	-0-CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	Mc	Me	Œ	z	o z
phenyl	-S- CH ₂ -CH ₂ -	3-OMc-4-CI-phenyl	Ψe	Me	품	z	
phenyl	- CH ₂ -CH ₂ -	3-OMe-4-CI-phenyl	ethyl	Me	H	Z	의 2

No.	N	R4. R5	0	R6	R ²	R3	2	Х	Υ	≯
68-I	Н000	3-Me-phenyl	- CH ₂ -CH ₂ -	3-OMe-4-CI-phenyl	OMe	CH ₂ -CF	CH2-CH2-CH2-C	Z	z	0
1 -8	H000	phenyl	- CH ₂ -CH ₂ -	2-Me-phenyl	Me	Me	СН	Z	z	0
1-91	H000	phenyl	- CH ₂ -CH ₂ - CH ₂ -	2-Me-phenyl	Mc	Me	Z	z	z	0
1-92	НООО	phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	OMe	0- CH ₂	0- CH2-CH2-C	z	z	S
1-93	COOMe	phenyl	- CH ₂ -CH ₂ -	4-iPr-phenyl	CF_3	Me	СН	z	z	
1-94	HOOO	2-Me-phenyl	- CH ₂ -CH ₂ -	4-F-phenyl	OMe	Me	СН	z	z	0
1-95	HOOO	phenyl	- CH=CH· CH ₂ -	4-Me-phenyl	OMc	Me	СН	Z	z	0
96-1	COOH	phenyl	- CH=CH- CH ₂ -	4-Me-phenyl	Me	Me	СН	z	z	0
1-97	НООЭ	2-Me-phenyl	- CH ₂ -CH ₂ -	4-iPr-phenyl	Me	Me	CH	z	z	0
1-98	СООН	phenyl	-0- CH ₂ -CH ₂ -	phenyl	Me	Me	z	z	z	
1-99	НООО	4-Et-phenyi	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Me	Me	СH	z	z	0
<u>1-100</u>	COOH	4-Et-phenyi	-CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Me	Me	z	z	z	0
1-101	Н000	phenyl	· CH ₂ -CH ₂ -	4-(di-Me-amino)-phenyl	Me	Mc	z	z	z	
1-102	НООО	phenyl	· CH ₂ -CH ₂ -	4-(di-Me-amino)-phenyl	ethyl	Me	СН	z	z	
1-103	H000	2-Me-phenyl	- CH ₂ -CH ₂ -	4-CI-phenyl	ethyl	Me	СН	z	z	0
1-104	КООН	4-F-phenyl	- CH ₂ -CH ₂ -	4-OMc-phenyl	OMe	CH2-CF	CH2- CH2-CH2-C	z	z	0
I-105	HOOO	phenyi	- C(CH ₃) ₂ -CH ₂ -	3-CI-phenyl	OMe	0- CH ₂	O- CH2-CH2-C	z	z	0
I-106	H000	phenyl	· CH ₂ -CH ₂ -	2-Me-phenyl	CF_3	Me	ਲ	z	z	
1-107	Н000	phenyi	- CH ₂ -CH ₂ -	2-Me-phenyl	OMc	Me	픙	z	z	
1-108	H000	phenyl	· CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	Me	Me	Z	z	픙	
I-109	COOMe	phenyl	· CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	OMe	Me	СН	z	z	
1-110	H000	phenyl	-CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	Me	Me	СН	z	z	S
1-111	Н000	phenyl	· CH=CH· CH ₂ -	4-iPr-phenyl	ОМе	0-CH	O-CH2-CH2-C	z	z	0
1-112	Н000	phenyl	· CH=CH- CH ₂ -	4-Me-phenyi	CF3	Me	품	z	z	٥
1-113	СООН	phenyl	-CH ₂ -CH ₂ -	3,4-di-Me-phenyl	Me	Me	픙	z	z	0

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Z	СН	O- CH2-CH2-C	СН	CH2- CH2-CH2-C	O- CH ₂ -CH ₂ -C	СН	СН	СН	СН	O- CH2-CH2-C	СН	5	СН	CH	E.	z	CH2-CH2-CH2-C	z	СН	O- CH2-CH2-C	СН	CH	CH	CH2- CH2-CH2-C
\mathbb{R}^3	Me	10-CH	Mc	СН2-С	HD -0	Me	Mc	Mc	Me	10-CH	Me	Me	Me	Me	Mc	Me	CH ₂ - C	Me	Me	0-CF	Me	Mc	Me	CH ₂ - (
\mathbb{R}^2	ethyl	OMe	OMe	OMe	OMe	OMe	Me	G.	ethyl	OMe	OMe	Me	Me	ethyl	OMc	cthyl	OMe	Me	ethyl	OMe	CF3	ОМе	Me	OMe
R6	3,4-di-Me-phenyl	4-OMe-phenyl	3,4-di-OMe-phenyl	3,4-methylenedioxyphenyl	3,4-di-Me-phenyl	4-(di-Me-amino)-phenyl	4-(di-Me-amino)-phenyl	4-Me-phenyl	3-OMe-phenyl	3-OMc-phenyl	4-Me-phenyl	4-Me-phenyl	3-OMe-4-Me-phenyl	4-iPr-phenyl	4-iPr-phenyl	4-Me-phenyl	3-OMe-4-Me-phenyl	4-OMe-phenyl	4-OMe-phenyl	4-Me-phenyl	4-Et-phenyl	4-Et-phenyl	4-Et-phenyl	2-OMe-phenyl
0	-0- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ ·CH ₂ ·	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	· CH ₂ ·CH ₂ ·	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	· CH ₂ ·CH ₂ · CH ₂ ·	- CH ₂ -CH ₂ - CH ₂ -	-S- CH ₂ -CH ₂ -	- СН(ОН)-СН2-	-CH ₂ -CH ₂ -	- CH=CH- CH ₂ -	· CH=CH· CH2-	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- CH(OH)-CH ₂ -	- CH ₂ -CH ₂ -
R4. R5	phenyl	4-Et-phenyl	4-Et-phenyl	phenyl	phenyl	phenyl	phenyl	4-F-phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	4-Et-phenyl	4-Et-phenyl	phenyl	phenyi	4-I-phenyl	phenyl	phenyl
RI	H000	H000	H000	COO- i-Propvl	HOOS	H003	H000	H000	H000	Н000	Н000	H000	H000	Н000	Н000	H000	C00H	H000	H000	Н000	COOButyl	H000	H000	НООЭ
No.	1-114	1-115	1-116	1-117	1-118	1-119	1-120	1-121	1-122	1-123	1-124	1-125	1-126	1-127	1-128	1-129	1-130	1-131	1-132	1-133	1-134	1-135	1-136	1-137

R	R4, R5	0	R6	R2	R ³	Z	×	\ \	≥
1 =	phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	Σe	Me	CH	z	z	0
1	phenyi	- CH ₂ -CH ₂ - CH ₂ -	3-OMe-phenyl	Μe	Me	Z	z	z	0
	phenyl	- CH ₂ -CH ₂ -	2-OMe-phenyl	OMe	0-CH ₂	0-CH2-CH2-C	z	z	0
_	phenyl	- CH ₂ -CH ₂ -	3-OMe-4-Et-phenyl	Me	Me	z	z	z	0
_	phenyl	- CH ₂ -CH ₂ -	4-Et-phenyl	ethyl	Me	z	z	z	0
	phenyl	- CH=CH- CH ₂ -	4-Cl-phenyl	ethyl	Me	СН	z	z	0
	phenyl	- CH=CH- CH ₂ -	4-CI-phenyl	OMe	CH ₂ -CH	CH2-CH2-CH2-C	z	z	0
	phenyl	· CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	OMc	Me	H)	z	z	0
	phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	Mc	Me	СН	z	z	0
	4-Et-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	Me	СН	z	z	0
	4-Et-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	СН	z	z	0
	phenyl	- CH ₂ -CH ₂ -	3-OMe-4-Et-phenyl	OMe	0-CH	0- СН=СН-С	z	z	0
	phenyl	- CH ₂ -CH ₂ -	3-OMe-4-Et-phenyl	OMe	0-CH ₂	0-СН2-СН2-С	z	z	0
	4-Me-phenyl	· CH ₂ -CH ₂ -	cyclohexyl	CF_3	Me	НЭ	z	N	0
	phenyl	- CH ₂ -CH ₂ -	cyclohexyl	OMe	ethyl	СН	z	z	0
	phenyl	- CH ₂ -CH ₂ -	cyclohexyl	OMe	Me	нэ	z	Z	0
	phenyl	- CH ₂ -CH ₂ - CH ₂ -	3-OMe-phenyl	CF_3	Me	СН	z	z	0
	phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	OMe	Me	СН	z	z	0
	phenyl	- CH ₂ -CH ₂ -	cyclohexyl	Me	Mc	₽	z	H	6
	phenyl	· CH ₂ -CH ₂ -	cyclohexyl	Me	Mc	z	z	품	0
	4-Cl-phenyl	- CH ₂ -CH ₂ -	cyclohexyl	ethyl	Me	СН	z	z	0
	phenyl	- CH=CH- CH ₂ -	4-Cl-phenyl	Me	Me	СН	z	z	0
_	phenyl	- CH=CH- CH ₂ -	4-CI-phenyl	Me	Me	z	Z	z	0
_	phenyl	- CH ₂ -CH ₂ -	2-OMe-phenyl	Me	Me	z	Z	z	0
_	phenyl	- CH ₂ -CH ₂ -	2-OMe-phenyl	ethyl	Me	СН	Z	z	0

No.	R ¹	R4, R5	0	R6	R ²	R ³	Z	×	Y	×
1-163	СООН	4-CI-phenyl	-CH ₂ -CH ₂ -	2-OMe-phenyl	ethyl	Me	СН	z	z	0
1-164	соон	4-CI-phenyi	- CH ₂ -CH ₂ -	2-OMe-phenyl	OMe	7н⊃-0	0- CH ₂ -CH ₂ -C	z	z	0
1-165	нооэ	4-Et-phenyl	-CH ₂ -CH ₂ -	cyclohexyl	ОМе	CH ₂ - CF	CH2-CH2-CH2-C	z	z	0
1-166	нооэ	phenyl	- CH ₂ -CH ₂ -	cyclohexyl	OMe	0- СН	O- CH2-CH2-C	z	z	S
1-167	НООО	phenyi	· CH ₂ -CH ₂ -	4-SMe-phenyl	ОМе	о- СН ₂	O- CH2-CH2-C	z	Z	0
1-168	H000	phenyl	· CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	CF_3	Me	СН	z	z	0
1-169	нооэ	phenyl	· CH ₂ -CH ₂ -	3-Me-4-CI-phenyl	CF3	Me	СН	z	z	0
1-170	НООЭ	phenyl	· CH ₂ -CH ₂ -	4-OEt-phenyl	ethyl	Me	СН	z	z	0
1-171	соон	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	ОМе	CH2-CF	CH2-CH2-CH2-C	z	z	0
1-172	COOH	phenyl	· CH ₂ -CH ₂ -	4-CI-phenyl	OMe	Me	СН	z	z	S
1-173	Н000	3-Me-phenyl	-CH ₂ -CH ₂ -	4-CI-phenyl	Me	Me	СН	z	z	0
I-174	НООЭ	phenyi	-0- CH ₂ -CH ₂ -	4-CI-phenyl	ethyl	Me	Z	z	z	0
1-175	КООН	phenyl	· CH=CH· CH ₂ -	4-CI-phenyl	CF3	Mc	СН	z	z	0
1-176	НООО	phenyl	- CH=CH- CH ₂ -	4-Cl-phenyl	OMe	Me	СН	z	Z	0
1-177	НООЭ	phenyi	· CH ₂ ·CH ₂ -	2-Me-4-CI-phenyl	SMe	Me	СН	z	z	0
1-178	H000	phenyl	- CH ₂ -CH ₂ -	cyclohexyl	ОМе	H⊃-ZH⊃	CH2-CH2-CH2-C	z	z	0
1-179	НООЭ	4- CF3-phenyl	-CH2-CH2-	3-OMe-phenyl	Me	Me	СН	z	z	0
1-180	H000	4- CF3-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	Me	Mc	Z	z	Z	0
1-181	нооэ	phenyl	-CH ₂ -CH ₂ -	cyclohexyl	OMe	о- СН ₂	0- CH2-CH2-C	z	z	0
1-182	COOBzI	phenyl	- CH ₂ -CH ₂ -	4-CI-phenyl	OMe	CH2-CH	CH2-CH2-CH2-C	z	z	0
1-183	H000	phenyl	- CH ₂ -CH ₂ -	2-Me-4-Cl-phenyl	OMe	0- CH ₂	O- CH2-CH2-C	z	z	
1-184	КООН	phenyl	- сн(он)-сн ₂ -	naphth-2-yl	CF3	Me	СН	z	Z	0
1-185	СООН	phenyi	- CH ₂ -CH ₂ -	2-OMe-phenyl	ОМе	Me	СН	z	z	0
1-186	КООН	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyi	Me	Me	СН	z	z	0

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R³	Me	Me	Me	Me	O-CH	Me	Me	CH2-CI	0-CH	Me	Me	Mc	CH2-C	O-CH2	Me	Me	₩e	Me	Mc	Me	Me	0-CH ₂	Mc	Me
\mathbb{R}^2	Me	Me	OMe	Me	OMe	Me	ethyl	OMe	OMe	OMe	Me	ethy	OMe	OMe	P.	F.	OMe	Me	ethy.	OMe	ethyl	OMe	₩e	ethyl
R6	4-OEt-phenyi	2-OMe-phenyl	naphth-2-yl	naphth-2-yl	4-Cl-phenyl	4-iPr-phenyl	4-SMe-phenyl	4-SMe-phenyl	3,4-di-OMe-phenyl	3-OMe-phenyi	naphth-2-yl	1-Me-naphth-2-yi	1-Me-naphth-2-yl	naphth-2-yl	4-OEt-phenyl	4-OEt-phenyl	4-OEt-phenyl	cyclohexyl	cyclohexyl	4-OEt-phenyl	3,4-di-OMe-phenyl	3,4-di-OMc-phenyl	4-OH-phenyl	4-OH-phenyl
0	- CH ₂ -CH ₂ -	- CH=CH- CH ₂ -	- CH=CH- CH ₂ -	-CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	-CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH=CH- CH ₂ -	- CH=CH- CH ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -			
R4, R5	phenyl	phenyl	2-Me-phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	4-CF3-phenyl	4-CF ₃ -phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyi	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl
RI	H000	ЖО Н	H000	Н000	H000	НООО	Н000	H000	ЮОН	H000	H005	Н00Э	Н000	СООМе	COOE	НООЭ	Н000	СООН	H000	tetrazole [sic]	СООН	СООН	Н000	C00H
Š.	1-187	I-188	1-189	I-190	1-191	1-192	1-193	1-194	1-195	1-196	1-197	I-198	1-199	1-200	1-201	1-202	1-203	I-204	I-205	1-206	1-207	1-208	1-209	1-210

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X	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z
2	Z	СН	O- CH2-CH2-C	СН	СН	СН2- СН2-СН2-С	СН	CH2- CH2-CH2-C	0- CH ₂ -CH ₂ -C	Z	0- СН2-СН2-С	Z	СН	Z	СН	СН	СН	СН	Z	СН	СН	СН	CH2-CH2-CH2-C	Z
R ³	Me	Me	0- CH ₂	Me	Me	CH2-CF	Me	CH2-CF	0-CH ₂	Me	0-СН2	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Mc	CH ₂ - CF	Me
\mathbb{R}^2	Me	ethyl	ОМе	CF3	ethyl	OMe	Me	OMe	OMe	Me	OMe	CF ₃	Mc	Mc	OMe	Me	OMe	Me	ethyl	OMe	Me	ethyl	OMc	Me
R6	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	3-OMe-phenyl	2-OMe-phenyl	4-OEt-phenyi	4-OEt-phenyl	4-SMe-phenyl	4-Cl-phenyl	4-Cl-phenyl	4-SMe-phenyl	4-OEt-phenyl	3,5-di-OMe-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	3,5-di-OMe-phenyl	3,5-di-OMe-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	3,5-di-OMe-phenyl	cyclohexyl	cyclohexyl	3,5-di-OMe-phenyl	3,5-di-OMe-4-CI-phenyl	4-CI-phenyl
0	-CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- C(CH ₃) ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- O-CH ₂ -CH ₂ -	· CH ₂ ·CH ₂ -	- CH=CH- CH ₂ -	- CH=CH- CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- сн(он)-сн	- CH ₂ -CH ₂ -	- CH2-CH2- CH2-
R4, R5	4-CF3-phenyl	4-CF3-phenyl	phenyl	phenyl	phenyl	phenyl	phenyi	phenyl	phenyi	phenyl	phenyl	4-Br-phenyl	phenyi	phenyl	4-I-phenyl	phenyl	4-CF3-phenyl	4-CF3-phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl
R1	СООН	НООЭ	НООЭ	НООЭ	СООН	H000	НООЭ	нооэ	КООН	СООН	Н000	Н000	H000	Н000	Н000	Н000	Н000	СООН	Н000	СООН	соон	СООН	нооэ	СООН
So.	1-211	1-212	1-213	I-214	1-215	1-216	1-217	1-218	1-219	1-220	1-221	1-222	1-223	1-224	1-225	1-226	1-227	1-228	1-229	1-230	1-231	1-232	1-233	1-234

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2	СН	O-CH2-CH2-C	СН	CH2-CH2-CH2-C	СН	Э	СН	z	CH	0-CH2-CH2-C	СН	CH	СН	Z	CH	CH.	СН	CH2-CH2-CH2-C	O-CH2-CH2-C	품	CH2-CH2-CH2-C	0-CH2-CH2-C	H	СН
R ³	Me	0-CH	Me	CH ₂ -CI	Me	Me	Me	Me	Me	0-CH	OMe	Mc	Me	Mc	Me	Me	Me	CH2-CI	O-CH ₂	Me	CH2-CF	0-CH ₂	OMe	Me
\mathbb{R}^2	ethyl	эмо	ethyl	OMe	G.	OMe	GF3	OMe	ethyl	OMe	OMe	OMe	Me	Mc	ethyl	OMe	Me	OMc	OMe	GF ₃	OMe	OMe	OMe	GF3
R6	4-Cl-phenyl	3,5-di-OMe-phenyl	3-OMe-phenyl	3-OMe-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	2-Me-3-OMe-phenyl	3-OMe-phenyl	4-OMe-phenyl	4-OMe-phenyl	4-SMe-phenyl	4-SMe-phenyl	3-OMe-phenyl	3-OMe-phenyl	3-OMe-phenyl	4-Cl-phenyl	4-Ci-phenyl	3-OMe-phenyl	3-OMe-phenyl	cyclohexyl	4-OMe-phenyl	4-OMe-phenyl	cyclohexyl	2-OMe-phenyl
Ō	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ -	- CH2-CH2-	-CH ₂ -CH ₂ -	- CH=CH- CH ₂ -	- CH=CH- CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH(CH ₃)-	- CH ₂ -CH ₂ -	- СН=СН- СН₂-	- CH=CH- CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -						
R4, R5	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	4-CF3-phenyl	4-CF ₃ -phenyl	phenyl	phenyi	phenyl	phenyl	phenyi	phenyl	phenyl	4-F-phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyl
R¹	НООЭ	СООМе	Н000	COOH	Н000	СООН	СООН	С00Н	СООН	соон	СООН	СООН	СООН	Н000	СООН	СООН	НООЭ	соон	СООН	СООН	СООН	СООН	СООН	tetrazole [sic]
No.	1-235	1-236	1-237	1-238	1-239	1-240	1-241	1-242	I-243	1-244	1-245	1-246	1-247	1-248	1-249	1-250	1-251	1-252	1-253	1-254	1-255	I-256	1-257	1-258

COOH 4-CF3-phenyl -CH2-CH2- 4-OMe-phenyl Me Me CH COOH phenyl -CH2-CH2- 4-OMe-phenyl Me Me N COOH phenyl -CH2-CH2- 2-OMe-phenyl Me Me CH COOH phenyl -CH2-CH2- 3-OMe-phenyl Me Me CH COOH phenyl -CH2-CH2- 4-CI-phenyl Me Me CH COOH phenyl -CH2-CH2- 4-CI-phenyl CF3 Me CH COOH phenyl -CH2-CH2- 4-CI-phenyl CF3 Me CH COOH phenyl -CH2-CH2- 4-OMe-phenyl CF3 Me CH COOH	Š	RI	R4. R5	0	R6	R ²	R ³	2	×	Y	⋧
COOH 4-CF3-phenyi -CH2-CH2- 4-OMe-phenyl Me Me N COOH phenyl -CH(2-OMe-phenyl)-CH2- 2-OMe-phenyl Me Me CH COOH phenyl -CH2-CH2- 2-OMe-phenyl Me Me CH COOH phenyl -CH2-CH2- 3-OMe-phenyl Me Me CH COOH phenyl -CH2-CH2- 2-OMe-phenyl Me Me Mr COOH phenyl -CH2-CH2- 2-OMe-phenyl Me Mr CH COOH phenyl -CH2-CH2- 2-OMe-phenyl Me Mr CH COOH phenyl -CH2-CH2- 2-OMe-phenyl Mr Mr CH COOH phenyl -CH2-CH2- 4-CMe-phenyl Mr Mr CH COOH phenyl -CH2-CH2- 4-OMe-phenyl Mr Mr CH2-CH2- COOH phenyl -CH2-CH2- 4-OMe-phenyl Mr Mr CH2-CH2-	259	H000	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Mc	Me	СН	z	z	0
COOH phenyl CH(2-OMe-phenyl)-CH ₂ - 2-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 3-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl Me Me N COOH phenyl - CH ₂ -CH ₂ - 4-E1-phenyl CH CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - 4-E1-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl CH ₃ -CH ₂ -CH ₂ - CH ₂ -CH ₂ -C	260	НООЭ	4-CF3-phenyl	· CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	Z	z	z	0
COOH phenyl - CH ₂ -CH ₂ - 2-OMe-4-Br-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 3-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 3-OMe-phenyl Me Me N COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-Ch-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-Ch-phenyl Me CH CH COOH phenyl - CH ₂ -CH ₂ - 4-Ch-phenyl Me CH CH COOH phenyl - CH ₂ -CH ₂ - 4-Ch-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me Me CH COOH 4-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OM OC	.261	H000	phenyl	- CH(2-OMe-phenyl)-CH2-	2-OMe-phenyl	OMe	Me	СН	z	z	٥
COOH phenyl CH2-CH2- 3-OMe-phenyl Me Me CH COOH phenyl CH2-CH2- 3-OMe-phenyl Me Me N COOH phenyl CH2-CH2- 2-OMe-phenyl Me Me N COOH phenyl CH2-CH2- 2-OMe-phenyl Me Me CH2-CH2-CL2-CL2-CL2-CL2-CL2-CL2-CL2-CL2-CL2-CL	-262	HOOO	phenyl	- CH ₂ -CH ₂ -	2-OMe-4-Br-phenyl	Me	Me	СН	z	z	0
COOH phenyl - CH2-CH2- 3-OMe-phenyl Me Me N COOH phenyl - CH2-CH2- 2-OMe-phenyl Me O- CH2-CH2-C COOH phenyl - CH2-CH2- 4-EI-phenyl CF3 Me CH2-CH2-C COOH phenyl - CH2-CH2- 2-OMe-phenyl cHyl Me CH COOH phenyl - CH2-CH2- 3-45-tri-OMe-phenyl cM O- CH2-CH2- COOH phenyl - CH2-CH2- 4-SMe-phenyl CF3 Me CH COOH phenyl - CH=CH-CH2- 4-OMe-phenyl Me Me CH COOH phenyl - CH=CH-CH2- 4-OMe-phenyl Me CH2-CH2- CH2-CH2- COOH phenyl - CH=CH-CH2- 4-OMe-phenyl Me CH2-CH2- CH2-CH2- COOH phenyl - CH2-CH2- 2-OMe-phenyl Me CH2-CH2- CH2-CH2- COOH 4-EI-phenyl - CH2-CH2- 4-OMe-phenyl OM CH2-CH2- C	1-263	H000	phenyl	-CH ₂ -CH ₂ -	3-OMe-phenyl	Μe	Mc	СН	z	z	0
COOH phenyl - CH2-CH2- 2-OMc-phenyl Me Me N COOH phenyl - CH2-CH2- 4-El-phenyl OMe O-CH2-CH2-C COOH phenyl - CH2-CH2- 4-El-phenyl CH3 Me CH COOH phenyl - CH2-CH2- 2-OMc-phenyl OMe O- CH2-CH2-C COOH phenyl - CH2-CH2- 4-SMc-phenyl Me CH COOH phenyl - CH2-CH2- 4-SMc-phenyl Me Me CH COOH phenyl - CH2-CH2- 4-OMc-phenyl Me Me CH COOH phenyl - CH2-CH2- 4-OMc-phenyl OMe CH2-CH2-C CH2-CH2-C COOH phenyl - CH2-CH2- 4-OMc-phenyl Me Me CH2-CH2-C COOH 4-Br-phenyl - CH2-CH2- 2-OMc-phenyl OMe CH2-CH2-C COOH 4-Br-phenyl - CH2-CH2- 4-OMc-phenyl OMe CH2-CH2-C COOH 4-Cr-phenyl	1-264	HOOO	phenyl	· CH ₂ -CH ₂ -	3-OMe-phenyl	Me	Mc	Z	z	z	٥
COOH phenyl - CH ₂ -CH ₂ - CH ₂ - 4-El-phenyl OF CH ₂ -CH ₂ -C COOH phenyl - CH ₂ -CH ₂ - CH ₂ - 2-OMe-phenyl CF3 Me CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - 4-SMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - 4-SMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe CH CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe CH ₂ -CH ₂ -CH ₂ - CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe CH ₂ -CH ₂ -CH ₂ - COOH q-EI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe OC CH ₂ -CH ₂ -CH ₂ -CH ₂ - COOH q-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe OC CH ₂ -CH ₂ -CH ₂ -CH ₂ - COOH q-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl O	1-265	HOOO	phenyl	-CH ₂ -CH ₂ -	2-OMc-phenyl	Me	Me	Z	z	ਹ	٥
COOH phenyl - CH ₂ -CH ₂ - CH ₂ - 4-Ci-phenyl CF ₃ Me CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl ethyl Me CH COOH phenyl - CH ₂ -CH ₂ - 4-SMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl GG CH COOH phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe CH ₂ -CH ₂ -CH ₂ - COOH d-Br-phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH d-CF ₃ -phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH d-CF ₃ -phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe O-CH ₂ -CH ₂ -CH ₂ - COOH d-CF ₃ -phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe OC CH COOH d-CF ₂ -phenyl - CH ₂ -CH ₂ - 3-4-methylendioxyphenyl Me CH	-266	НООЭ	phenyl	- CH ₂ -CH ₂ -	4-Et-phenyl	ОМе	² НЭ -0	-CH ₂ -C	z	z	0
COOH phenyl - CH2-CH2- 2-OMe-phenyl ethyl Me CH COOH phenyl - CH2-CH2- 4-SMe-phenyl OMe O- CH2-CH2-CH2- COOH phenyl - CH2-CH2- 4-SMe-phenyl GF3 Me CH COOH phenyl - CH2-CH2- 4-OMe-phenyl GF3 Me CH COOH phenyl - CH2-CH2- 4-OMe-phenyl GM CH2-CH2-CH2- CH COOH 4-Br-phenyl - CH2-CH2- 2-OMe-phenyl OMe CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-	-267	HOOO	phenyi	- CH ₂ -CH ₂ - CH ₂ -	4-CI-phenyl	CF_3	Me	СН	z	z	
COOH phenyl - CH ₂ -CH ₂ - 3.4,5-tri-OMe-phenyl OMe O- CH ₂ -CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - 4-SMe-phenyl Me Me CH COOH phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe CH ₂ -CH ₂ -CH ₂ - CH COOH 4-Br-phenyl - CH ₂ -CH ₂ - 2-OMe-phenyl OMe CH ₂ -CH ₂ -CH ₂ -CH ₂ - COOH 4-El-phenyl - CH ₂ -CH ₂ - 4-Me-phenyl OMe O- CH ₂ -CH	-268	HOOO	phenyl	-CH ₂ -CH ₂ -	2-OMe-phenyl	ethyi	Me	СН	z	z	S
COOH phenyl -CH2-CH2- 4-SMe-phenyl CF3 Me CH COOH phenyl -CH=CH-CH2- 4-OMe-phenyl Me Me N COOH phenyl -CH=CH-CH2- 4-OMe-phenyl Me CH2-CH2-CH2- COOH 4-Br-phenyl -CH(OH)-CH2- 2-OMe-phenyl OMe CH2-CH2-CH2-CH2-CH2- COOH 4-Er-phenyl -CH(OH)-CH2- 2-OMe-phenyl OMe O-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2	-269	НООЭ	phenyl	-CH ₂ -CH ₂ -	3,4,5-tri-OMe-phenyl	OMe	0- CH ₂	-CH ₂ -C	z	z	0
COOH phenyl · CH=CH-CH2* 4-OMe-phenyl Me Me N COOH phenyl · CH=CH-CH2* 4-OMe-phenyl oh cthyl Me CH COOH 4-Br-phenyl · CH2-CH2* 2-OMe-phenyl oh ob CH2-CH2*-CH2*-CH2*-CH2*-CH2*-CH2*-CH2*-C	-270	Н000	phenyl	-CH ₂ -CH ₂ -	4-SMe-phenyl	CF3	Me	СН	z	z	0
COOH phenyl - CH=CH- CH2- 4-OMe-phenyl chenyl Me CH2-CH2-C COOH 4-Br-phenyl - CH2-CH2- 2-OMe-phenyl OMe CH2- CH2-CH2- COOH 4-Et-phenyl - CH2-CH2- 4-OMe-phenyl OMe O- CH2-CH2-C COOH 4-CF3-phenyl - CH2-CH2- 4-OMe-phenyl OMe Me CH COOH 4-CF3-phenyl - CH4-OMe-phenyl)-CH2- 4-OMe-phenyl OMe Me CH COOH 4-CI-phenyl - CH2-CH2- 3-4-methylenedioxyphenyl Me Me CH COOH 4-CI-phenyl - CH2-CH2- 3-4-methylenedioxyphenyl Me Me N COOH 4-CI-phenyl - CH2-CH2- 4-OMe-phenyl Me Me CH COOH 4-CI-phenyl - CH2-CH2- 3-4-methylenedioxyphenyl Me Me N COOH 4-CI-phenyl - CH2-CH2- 4-OMe-phenyl ethyl Me N COOH 4-CI-phenyl - CH2-CH2- 4-OMe-phenyl	-271	HOOO	phenyl	· CH=CH- CH ₂ -	4-OMc-phenyl	Me	Me	Z	z	z	0
COOH 4-Br-phenyl -CH2-CH2- 2-OMe-phenyl OMe CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-	-272	СООН	phenyl	- CH=CH- CH ₂ -	4-OMe-phenyl	ethyl	Me	CH	z	z	न
COOH phenyl - CH(OH)-CH2- 2-OMe-phenyl OMe O- CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-CH2-	-273	НООО	4-Br-phenyl	-CH ₂ -CH ₂ -	2-OMe-phenyl	OMe	CH ₂ - CF	12-CH2-C	z	z	٥
COOH 4-El-phenyl - CH ₂ -CH ₂ - 4-Me-phenyl OMe Mo CH ₂ -CH ₂ -C COOH 4-CF ₃ -phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe Me CH COOH 4-CI-phenyl - CH ₂ -CH ₂ - 3-Me-4-OMe-phenyl Me CH COOH 4-CI-phenyl - CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me Me CH COOH 4-CI-phenyl - CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me Me N COOH 4-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N COOH 4-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N	-274	COOH	phenyl	- СН(ОН)-СН2-	2-OMe-phenyl	OMe	0- CH ₂	-CH ₂ -C	z	z	
COOH 4-CF ₃ -phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl OMe Me CH COOH 4-CI-phenyl - CH(4-OMe-phenyl)-CH ₂ - 3-Me-4-OMe-phenyl Me CH COOH 4-CI-phenyl - CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me CH COOH 4-CI-phenyl - CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me Me N COOH 4-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N COOH 4-CI-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N	1-275	H000	4-Et-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	ОМе	0- CH ₂	-CH ₂ -C	z	z	
COOH 4-Cl-phenyl - CH(4-OMe-phenyl)-CH ₂ - 4-OMe-phenyl OMe Me CH COOH 4-Cl-phenyl - CH ₂ -CH ₂ - 3.4-methylenedioxyphenyl Me CH COOH 4-Cl-phenyl - CH ₂ -CH ₂ - 3.4-methylenedioxyphenyl Me Me COOH 4-Cl-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl Me N COOH 4-Cl-phenyl - CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N COOH 4-Cl-phenyl - CH ₂ -CH ₂ - 4-Dhenyl ethyl Me CH	-276	COOH	4-CF3-phenyl	-CH ₂ -CH ₂ -	4-OMc-phenyl	OMe	Mc	СН	z	z	0
COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 3-Me-4-OMe-phenyl Me Me CH COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me Me CH COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me CH	-277	HOOO	4-Cl-phenyl	- CH(4-OMe-phenyi)-CH ₂ -	4-OMe-phenyl	ОМе	Me	СН	z	z	0
COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me Me CH COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 3,4-methylenedioxyphenyl Me N COOH 4-Cl-phenyl -CH ₂ -CH ₂ - 4-OMe-phenyl ethyl Me N COOH -CH ₂ -CH ₂ - 4-EL-phenyl ethyl Me CH	-278	НООО	4-CI-phenyl	· CH ₂ ·CH ₂ -	3-Mc-4-OMc-phenyl	Me	Me	СН	z	z	0
COOH 4-Cl-phenyl -CH2-CH2- 3,4-methylenedioxyphenyl Me N COOH 4-Cl-phenyl -CH2-CH2- 4-OMe-phenyl ethyl Me N COOH a-cl-phenyl -CH3-CH3- 4-El-phenyl ethyl Me CH	1-279	НООО	4-CI-phenyl	-CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	Mc	Me	GH	z	z	٥
COOH 4-Cl-phenyl - CH ₂ -CH ₂ - CH ₂ -CH ₂ - CH ₂ -CH ₂ - CH ₂ -	-280	НООО	4-CI-phenyl	-CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	Me	Me	Z	z	z	
COOH openy CH-CH-CH-CH- CH- CH-	-281	Н000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	ethyl	Me	z	z	z	0
COO!	1-282	HOOO	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-Et-phenyl	ethyi	Me	H	z	z	

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<u>></u>	z	z	z	z	z	z	z	z	z	z	z	z	B	z	z	z	z	z	z	z	z	z	z	z	Z
×	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z
2	CH2-CH2-CH2-C	CH2-CH2-CH2-C	O-CH2-CH2-C	CH	₹	3	0-CH2-CH2-C	8	z	CH	CH	СН	НЭ	Z	CH	HO	z	CH2-CH2-CH2-C	Z	0-CH2-CH2-C	CH2-CH2-CH2-C	ᆼ	ਲ	5	СН
R3				ž	æ	ž		ğ	Me	Æ	Me	ž	Me	Me	ž	æ	Ωe	ľ	Me			Me	₩	æ	χç
R ²	OMe	OMe	OMe	ethyl	OMe	₩	OMe	OMe	Me	ethyl	р Б	OMe	§	Σç	ethyl	ŝ	₩ We	OMe	ethyl	OMe	OMe	GF3	OMe	SMe	OMe
R6	4-Et-phenyi	4-Et-phenyl	4-Et-phenyi	4-OMe-phenyl	4-OMe-phenyl	4-OMe-phenyl	4-OMe-phenyl	3,4-di-OMe-phenyl	4-Me-phenyl	4-Me-phenyl	3-OMe-phenyl	3-OMe-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	3,4,5-tri-OMe-phenyl	4-Et-phenyl	4-Et-phenyl	3,4,5-tri-OMe-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	3,4,5-tri-OMe-phenyl	4-OMe-phenyl	3-Me-4-Et-phenyl	3-Me-4-Et-phenyl	4-Me-phenyl
0	· CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH=CH· CH ₂ -	· CH=CH· CH ₂ -	· CH ₂ -CH ₂ -	- СН(ОН)-СН ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- C(CH ₃) ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	· CH=CH· CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -			
R4, R5	phenyl	phenyl	phenyl	4-Cl-phenyl	phenyl	phenyl	3,4-di-Cl-phenyl	4-CI-phenyl	4-Et-phenyl	4-Et-phenyl	phenyl	phenyl	4-CI-phenyl	4-CI-phenyl	phenyl	phenyl	phenyi	phenyl	4-Ci-phenyl	3,4-di-Cl-phenyl	phenyl	phenyl	4-CI-phenyl	4-CI-phenyl	4-Et-phenyi
R¹	H003	НООЭ	НО00	H000	H000	H000	Н000	COOE	H003	H005	НООН	НООЭ	Н000	НО00	Н000	СООН	H000	H000	H000	Н000	Н000	СООН	HOO	COOH	C00H
No.	1-283	1-284	1-285	1-286	1-287	1-288	1-289	1-290	1-291	I-292	1-293	1-294	1-295	1-296	1-297	1-298	1-299	1-300	1-301	I-302	1-303	1-304	1-305	I-306	1-307

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R ⁴ , R ³ O			R6	\mathbb{R}^2	R ³	Z	×	YW
4-Et-phenyl - CH2-CH2-	CH2-CH2-		4-Mc-phenyl	Me	Me	£	z	0 Z
4-Ci-phenyl - CH ₂ -CH ₂ -	CH2-CH2-		4-iPr-phenyl	OMe	0-CH ₂	0-CH2-CH2-C	z	0 Z
4-CI-phenyl - CH ₂ -CH ₂ -	CH2-CH2-		3,4-methylenedioxyphenyl	OMe	Me	СН	z	0 Z
4-CI-phenyl - CH ₂ -CH ₂ -	CH2-CH2-		4-Br-phenyl	Μc	Me	z	z	0 Z
phenyl - CH ₂ -CH ₂ -	CH2-CH2-		4-Et-phenyl	Me	Me	z	z	0 z
phenyl - CH ₂ -CH ₂ -	CH2-CH2-		4-Et-phenyl	ethyl	Me	СН	z	0 2
phenyl - CH ₂ -CH ₂ - C	H2-CH2-C	.H ₂ -	4-Et-phenyl	CF_3	Me	СН	z	0 Z
phenyl - CH ₂ -CH ₂ - CH ₂	H2-CH2- C	H ₂ -	4-Et-phenyl	OMe	Me	СН	z	0 z
4-CI-phenyl - CH ₂ -CH ₂ -	H2-CH2-		4-Br-phenyl	ethyl	Me	Z	z	0 Z
	H(4-Br-phe	enyl)-CH ₂ -	4-Br-phenyl	OMe	0-CH ₂	0-CH2-CH2-C	z	O Z
4-CI-phenyi - CH(OH)-CH ₂ -	нон)-сн		4-SMe-phenyl	OMe	Me	СН	z	0 Z
phenyl - CH ₂ -CH ₂ - CH ₂ -	H2-CH2-CI	ł ₂ -	3,4,5-tri-OMe-phenyl	Me	Me	z	z	0 Z
phenyi - CH ₂ -CH ₂ - CH ₂	H2-CH2- CH	12-	3,4,5-tri-OMe-phenyl	cthyl	Me	СН	z	0
phenyl - CH ₂ -CH ₂ -	H2-CH2-		3,5-di-OMe-phenyl	OMe	CH2-CH	CH2-CH2-CH2-C	z	O Z
phenyl - CH ₂ -CH ₂ -	.H2-CH2-		3,5-di-OMe-phenyl	ОМе	0- CH2-CH2-C	-CH2-C	N	0 N
	.H ₂ -CH ₂ -		4-SMe-phenyl	ethyl	Me	Ю	N	0 2
4-Et-phenyl - CH ₂ -CH ₂ -	H ₂ -CH ₂ -		4-SMe-phenyl	ОМе	O- CH2-CH2-C	-CH2-C	Z.	0 Z
4-CI-phenyl - C(CH ₃) ₂ -CH ₂	, (сн ₃)2-сн	2-	4-SMe-phenyl	Me	Me	СН	z	CH O
4-Cl-phenyl - CH ₂ -CH ₂ -	H ₂ -CH ₂ -		4-SMe-phenyl	Me	Me	z	z	S S
phenyl - CH ₂ -CH ₂ -	H2-CH2-		3,4,5-tri-OMe-phenyl	Me	Me	СН	z	0
phenyl - CH ₂ -CH ₂ -	H2-CH2-		3,4,5-tri-OMe-phenyl	Me	Me	Z	z	0 Z
4-CI-phenyl - O-CH ₂ -CH ₂	-CH ₂ -CH ₂		4-SMe-phenyl	ethyl	Me	CH	z	0
	H2-CH2-	CH ₂ -	4-Me-phenyi	ethyl	Me	СН	z	0 N
phenyl - CH2-CH2- CH2-	H2-CH2	CH2-	4-Mc-phenyi	OMc	O-CH2-CH2-C	CH2-C	z	N O
4-CI-phenyl - CH2-CH2-	H ₂ -CH ₂ -		4-SMc-phenyl	OMe	0-СН=СН-С	CH-C	Z	0 N

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*	0	0	0	0	0	0	6	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>></u>	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	ਲ	z	z	z	z	z	z	z	z	z
×	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z
Z	Ð	Æ	Æ	품	z	Æ	ᆼ	z	z	E	5	СН	GH	£	z	СН	z	CH	CH2-CH2-CH2-C	Э	Z	Æ	0-CH ₂ -CH ₂ -C	СН	СН
R3	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	Me	CH2-CI	Me	Me	Me	9.CH	Me	ОМе
\mathbb{R}^2	OMe	Me	OMe	Me	Me	ethy	ž	Me	Ψe	OMe	Ν̈́ς	ethyl	OMe	Æ	æ	æ	Æ	ethyl	OMe	F.	Ψç	ethyi	OMe	OMe	OMe
R6	4-0Et-3-OMe-phenyl	4-SMe-phenyl	3,4,5-tri-OMe-phenyi	3,4,5-tri-OMe-phenyl	4-iPr-phenyl	4-iPr-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	4-OEt-3-OMc-phenyl	4-Et-phenyl	4-Et-phenyl	4-OEt-3-OMe-phenyl	4-Me-phenyl	4-Me-phenyl	4-Me-phenyl	4-Me-phenyl	3,5-di-OMe-phenyl	3,5-di-OMe-phenyl	2-Cl-phenyl	3,4,5-tri-OMe-phenyl	4-Me-phenyl	3,4-di-Me-phenyl	4-OMe-phenyl	3,4-di-OMe-phenyl	3,4,5-tri-OMe-phenyl
0	- СН(ОН)-СН ₂ -	- CH(4-SMe-phenyl)-CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	-CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	-сн2-сн2-	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH(4-Mc-phenyl)-CH ₂ -	· CH ₂ -CH ₂ - CH ₂ -	· СН ₂ -СН ₂ - СН ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	· CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ - CH ₂ -	- CH(OH)-CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -	- CH ₂ -CH ₂ -
R4, R5	4-CI-phenyl	4-CI-phenyl	phenyl	phenyl	4-CI-phenyl	4-Cl-phenyl	4-Me-phenyl	4-Me-phenyl	3,4-di-Cl-phenyl	phenyi	phenyl	4-CI-phenyl	4-CI-phenyl	phenyl	phenyi	4-Cl-phenyl	phenyl	phenyl	phenyi	phenyl	4-Cl-phenyl	4-Cl-phenyl	4-Me-phenyl	4-Mc-phenyl	phenyl
Ri	Н000	H003	Н000	H003	H000	СООН	НООЭ	СООН	Н000	СООН	Н000	НООЭ	COOH	C00H	H000	COOMe	H000	C00H	СООН	СООН	СООН	СООН	H000	НООЭ	C00H
No.	1-333	1-334	1-335	I-336	1-337	1-338	I-339	1-340	I-341	1-342	1-343	I-344	I-345	I-346	1-347	1-348	1-349	1-350	1-351	I-352	1-353	I-354			1-357

No.	R1	R4, R5	0	R6	R2	R3	2	×	X	≱
1-358	СООН	phenyl	- CH ₂ -CH ₂ -	3,4,5-tri-OMe-phenyl	ОМе	Me	СН	N	z	0
1-359	СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	OMe	O-CH ₂	0- CH ₂ -CH ₂ -C	N	z	S
1-360	СООН	4-CI-phenyl	· CH ₂ -CH ₂ -	4-Et-phenyl	OMe	Me	СН	z	z	S
1-361	Н000	4-CI-phenyl	· CH ₂ -CH ₂ -	4-Et-phenyl	Mc	Me	СН	z	CH	0
1-362	СООН	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-Me-phenyl	CF_3	Me	СН	Z	z	0
1-363	СООН	phenyl	· CH ₂ -CH ₂ - CH ₂ -	4-Me-phenyl	ОМе	Me	СН	z	z	0
I-364	жон	4-CI-phenyl	- CH ₂ -CH ₂ -	4-Et-phenyl	ethyi	Me	Z	z	Z	0
1-365	СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	4-iPr-phenyl	ОМе	Me	СН	Z	z	0
I-366	Н000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-iPr-phenyl	Me	Me	СН	Z	z	0
1-367	нооэ	phenyl	- CH ₂ -CH ₂ -	2-CI-phenyl	Mc	Me	Z	z	z	0
1-368	Коон	phenyl	- CH ₂ -CH ₂ -	2-CI-phenyl	ethyl	Me	СН	Z	Z	0
1-369	НООЭ	4-CI-phenyl	- CH ₂ -CH ₂ -	4-Et-phenyl	SMe	Me	СН	N	z	0
1-370	Н000	phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	ОМе	0- CH ₂	0- CH2-CH2-C	Z	z	0
1-371	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	Z	z	z	0
1-372	НООЭ	4-Mc-phenyl	- CH ₂ -CH ₂ -	4-OMc-phenyl	ethyl	Me	СН	z	z	0
1-373	нооэ	phenyl	- CH ₂ -CH ₂ -	4-Et-phenyl	CF_3	Me	нэ	z	z	0
1-374	нооэ	4-CI-phenyl	- C(CH ₃) ₂ -CH ₂ -	4-Et-phenyl	OMe	0- CH ₂	0- СН2-СН2-С	z	z	0
1-375	СООН	4-Cl-phenyl	· CH ₂ -CH ₂ -	4-CI-phenyl	ОМе	Me	СН	z	z	S
1-376	нооэ	4-CI-phenyl	- CH ₂ -CH ₂ -	1-Me-naphth-2-yl	ОМе	Me	СН	z	z	0
1-377	СООН	phenyl	- CH ₂ -CH ₂ -	3,5-di-OMe-phenyl	ОМс	Me	СН	z	z	0
1-378	СООН	phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,4-methylenedioxyphenyl	ethyl	Me	СН	z	z	0
1-379	нооэ	phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,4-methylenedioxyphenyl	OMe	0- CH ₂	0- СН ₂ -СН ₂ -С	z	Z	0
	СООН	phenyl	- CH ₂ -CH ₂ -	3,5-di-OMe-phenyl	Me	Me	СН	z	z	0
	НООО	4-CI-phenyi	- CH(4-OEt-phenyl)-CH ₂ -	4-OEt-phenyi	OMe	Me	СН	z	z	0
1-382	НООЭ	4-CI-phenyl	-сн(он)-сн ₂ -	4-OEt-phenyl	Me	Me	СН	z	z	0

No.	RI	R4, R5	0	R6	R ²	\mathbb{R}^3	2	×	¥	≱
1-383	КООЭ	phenyl	- CH ₂ -CH ₂ - CH ₂ -	2-CI-phenyl	OMe	Me	СН	z	Z	0
1-384	нооэ	phenyl	- CH ₂ -CH ₂ - CH ₂ -	2-CI-phenyl	Mc	Me	СН	Z	z	0
1-385	нооэ	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	0- CH ₂	0- CH ₂ -CH ₂ -C	z	z	0
1-386	нооэ	phenyl		3,4,5-tri-OMe-phenyl	CF3	Me	СН	z	z	0
1-387	СООН	4-Me-phenyl	-CH ₂ -CH ₂ -	4-OMc-phenyl	ОМе	Me	СН	z	z	0
1-388	нооэ	4-Me-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	СН	z	z	0
1-389	НООЭ	4-CI-phenyl	- CH ₂ -CH ₂ -	4-0Et-phenyl	ethyl	Me	N	z	СН	0
1-390	СООН	3,4-di-Cl-phenyl		3,5-di-OMe-phenyl	OMe	Me	СН	z	z	0
1-391	НООЭ	4-CI-phenyl		3,5-di-OMe-4-CI-phenyl	Me	Me	СН	z	z	0
I-392	НООЭ	4-CI-phenyl	- CH ₂ -CH ₂ -	3,5-di-OMe-phenyl	Me	Me	Z	z	Э	0
1-393	нооэ	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	ethyl	Me	СН	z	z	0
1-394	нооэ	phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,4-methylenedioxyphenyl	Me	Me	СН	z	N	0
1-395	нооэ	phenyl	- СН ₂ -СН ₂ -	3,4-methylenedioxyphenyl	Me	Me	Z	z	z	0
96E-1	нооэ	4-Cl-phenyl	- СН ₂ -СН ₂ -	4-OEt-3-OMe-phenyl	ОМе	0- CH ₂	0- CH ₂ -CH ₂ -C	z	z	0
1-397	НООЭ	4-CI-phenyl	- С(СН ₃) ₂ -СН ₂ -	3-OMe-phenyl	CF_3	Me	СН	z	z	0
1-398	НООЭ	phenyl	· CH ₂ -CH ₂ -	4-Me-phenyl	ethyl	Me	СН	z	z	0
666-1	H000	4-Me-phenyl	• сн ₂ -сн ₂ -	4-Me-phenyl	cthyl	Me	СН	z	z	0
1-400	нооэ	phenyl	- CH ₂ -CH ₂ -	2-Cl-phenyl	CF_3	Me	СН	z	z	0
1-401	нооэ	phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	ОМе	CH2-CH	CH2-CH2-CH2-C	z	z	0
1-402	нооэ	4-CI-phenyl	- C(CH ₃) ₂ -CH ₂ -	3-OMe-phenyl	Me	Me	СН	z	z	
1-403	нооэ	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	ethyl	Me	СН	z	z	0
1-404	нооэ	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	OMc	0-CH2	0- CH ₂ -CH ₂ -C	z	z	0
1-405	нооэ	4-Et-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	ОМе	Me	СН	z	z	S
1-406	нооэ	4-Et-phenyl	- СН2-СН2-	3-Me-4-OMc-phenyl	Me	Me	СН	z	z	0
I-407	СООН	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	ОМе	O-CH2	0- CH2-CH2-C	z	z	0

No.	R¹	R ⁴ , R ⁵	ō	R6	R2	R ³	2	×	>	≯
1-408	СООН	phenyl	- CH ₂ -CH ₂ -	3,5-di-OMe-phenyl	CF3	Me	СН	z	z	0
1-409	СООН	4-Et-phenyl	- CH ₂ -CH ₂ -	3-Me-4-OMe-phenyl	Mc	Me	Z	2	СН	0
1-410	СООН	phenyl	- CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	<u>ය</u>	Me .	СН	z	z	0
1-411	СООН	phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,4-methylenedioxyphenyl	OMe	Me	СН	N	z	0
1-412	НООЭ	4-Et-phenyl	- CH ₂ -CH ₂ -	4-OMc-phenyl	ethyt	Me	СН	СН	z	0
1-413	Н000	phenyi	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ethyl	Me	СН	z	z	0
I-414	нооэ	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	CH ₂ -CF	CH2-CH2-CH2-C	Z	z	0
1-415	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	Mc	Me	СН	Z	z	0
1-416	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	Mc	Me	Z	Z	N	0
1-417	СООН	4-Et-phenyi	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	SMe	Me	СН	N	z	0
I-418	СООМе	4-Et-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Me	Me	СН	z	Z	0
I-419	нооэ	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	Me	Me	СН	z	z	0
1-420	соон	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	Me	Me	Z	z	z	0
1-421	нооэ	4-Et-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Me	Me	N	z	z	S
1-422	нооэ	4-Et-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ethyl	Me	СН	CH	z	0
1-423	Н000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	Me	Me	НЭ	z	z	0
1-424	нооэ	4-Cl-phenyl	· CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyi	Mc	Me	Z	Z	N	0
1-425	нооэ	4-Et-phenyi	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	0-СН	0- СН=СН-С	z	z	0
1-426	нооэ	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	ethyl	Me	СН	z	z	0
1-427	СООН	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	OMe	0- CH ₂	0- CH2-CH2-C	z	z	0
1-428	СООН	phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	Me	Me	СН	z	z	0
1-429	СООН	phenyl	-CH ₂ -CH ₂ -	4-Me-phenyl	Mc	Me	Z	z	z	0
I-430	СООН	4-Et-phenyi	- CH ₂ -CH ₂ -	3-OMe-phenyl	OMe	CF3	СН	z	z	0
1-431	СООН	4-Mc-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	OMe	Me	СН	z	z	0
1-432	СООН	4-Mc-phenyl	· CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	OMe	0-CH ₂	0-CH2-CH2-C	z	z	0

No.	RI	R4, R5	0	R6	R2	R3	Z	×	7	3
I-433	НООЭ	4-Et-phenyl	- CH(3-OMe-phenyl)-CH ₂ -	3-OMc-phenyl	¥e	Me	CH	z	z	0
1-434	СООН	4-CI-phenyt	- CH ₂ -CH ₂ -	naphth-2-yl	Me	Me	CH	z	z	0
I-435	СООН	4-CF ₃ -phenyl	· CH ₂ -CH ₂ -	4-SMe-phenyl	OMe	0-CH ₂	0-CH ₂ -CH ₂ -C	z	z	0
1-436	НОΩ	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyi	OMe	Me	CH	z	z	0
1-437	СООН	4-Ci-phenyl	- CH ₂ -CH ₂ -	naphth-2-yl	Me	Me	Z	z	z	0
I-438	СООН	4-Et-phenyl	- сн(он)-сн ₂ -	3-OMe-phenyl	¥e	Me	z	z	z	0
1-439	СООН	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	ethyl	Me	æ	z	z	0
1-440	СООН	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	OMe	CH2-CF	CH2-CH2-CH2-C	z	z	0
1-441	СООН	4-Et-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	Me	Me	СН	z	ਲ	0
1-442	Н000	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	Me	Me	СН	z	z	0
1-443	СООН	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	Mc	Me	z	z	z	0
I-444	нооэ	4-Et-phenyl	- C(CH ₃) ₂ -CH ₂ -	3-OMe-phenyl	OMe	о- СН ₂	0- СН2-СН2-С	z	z	0
1-445	C00H	phenyi	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Mc	Mc	СН	Z	z	0
1-446	Н000	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Mc	Mc	Z	z	z	0
1-447	Н000	4-Me-phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,4-di-OMe-phenyl	cthyl	Me	СН	N	Z	0
1-448	Н000	4-Me-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	OMe	о- CH ₂	0- СН2-СН2-С	z	z	0
1-449	Н000	4-Et-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	OMe	Me	СН	Z	z	S
I-450	СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	2-OMe-phenyl	Me	Mc	КЭ	N	z	0
1-451	НООЭ	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	Me	Me	Z	z	z	0
1-452	соон	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-SMc-phenyl	cthyl	Mc	СН	z	z	0
1-453	нооэ	4-CI-phenyl	- CH ₂ -CH ₂ -	2-OMe-phenyl	Mc	Me	Z	z	z	0
1-454	COOBz1	4-Et-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	Mc	Me	нэ	Z	z	0
1-455	H000	4-Et-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyi	ethyl	Me	НЭ	нэ	z	0
	H000	4-Et-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	OMe	Me	Z	Z	z	0
1-457	Н000	4-Cl-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	ОМе	7 НЭ-0	0-СН2-СН2-С	z	z	0

No.	R¹	R4, R5	0	R6	R ²	\mathbb{R}^3	Z	×	Y	*
I-458	СООН	phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	CF3	Me	СН	Z	Z	0
1-459	соон	phenyl	· CH ₂ ·CH ₂ ·	4-SMe-phenyl	OMe	Me	СН	Z	Z	0
1-460	СООН	4-CI-phenyl	· CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	OMe	Me	СН	Z	Z	0
1-461	нооэ	4-CF3-phenyl	-CH ₂ -CH ₂ -	4-OMe-phenyi	Me	Mc	Z	СН	z	0
1-462	соон	phenyl	-CH ₂ -CH ₂ -	4-Me-phenyl	CF_3	Me	СН	Z	z	0
1-463	КООН	4-Me-phenyl	· CH ₂ ·CH ₂ · CH ₂ ·	3,4-di-OMe-phenyl	OMe	Me	СН	z	z	0
I-464	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	Me	Me	СН	N	N	0
1-465	соон	phenyl	- CH ₂ -CH ₂ -	4-Mc-phenyl	OMe	Me	СН	z	z	0
1-466	соон	4-CF3-phenyl	- C(CH ₃) ₂ -CH ₂ -	4-OMe-phenyl	ethyl	Me	СН	z	z	0
1-467	нооэ	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	ОМе	Me	СН	z	z	0
1-468	соон	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-SMc-phenyl	Me	Mc	СН	Z	z	0
. 1-469	соон	4-CF3-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ethyl	Me	Ю	К	z	0
1-470	СООН	4-Cl-phenyl	-CH ₂ -CH ₂ -	4-CI-phenyl	OMe	O-CH2-CH2-C	-CH ₂ -C	Z	z	0
1-471	соон	4-CI-phenyl	- CH ₂ -CH ₂ -	naphth-2-yl	OMe	Me	СН	z	z	0
1-472	соон	4-CF3-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ОМе	О-СН2-СН2-О	-CH ₂ -C	z	z	S
1-473	нооэ	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	Me	Me	СН	z	z	0
1-474	соон	phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,4-di-OMe-phenyl	ethyl	Me	СН	z	z	0
1-475	НООЭ	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	ОМе	O-CH2-CH2-C	-CH ₂ -C	z	z	0
1-476	Н000	phenyl	· CH ₂ -CH ₂ -	4-OEt-phenyl	Me	Me	N	z	z	0
1-477	СООН	4-CF3-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	ethyl	Me	Z	z	z	0
I-478	коон	4-CF ₃ -phenyl	- CH ₂ -CH ₂ -	2-Me-3-OMc-phenyl	OMe	O-CH2-CH2-C	-CH ₂ -C	z	z	0
1-479	СООН	4-Me-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-OMe-phenyl	ethyl	Me	СН	z	z	0
1-480	СООН	4-Mc-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	O- CH2-CH2-C	-CH2-C	z	z	0
1-481	СООН	phenyl	· CH ₂ -CH ₂ -	3,4-di-OMc-phenyl	OMe	ОМе	СН	z	z	0

91 - CH ₂ -CH ₂ - 91 - CH ₂ -CH ₂ - 91 - CH ₂ -CH ₂ - 91 - CH ₂ -CH ₂ CH ₂ -CH ₂ CH ₂ -CH ₂ - 91 - CH ₂ -CH ₂ CH ₂			Y	n2	D3	7	>	>	}
COOH phenyl - CH2-CH2- COOH 4-CF3-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2-	R ² Q	-	<u>ر</u>	Ţ	2	1	4	T	:
COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2-			3,4-di-OMe-phenyl	OMe	Mc	Œ	z	z	
COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH			3-OMe-phenyl	ethyl	Mc	СН	z	z	٥
COOH 4-CF ₃ -phenyl - CH ₂ -CH ₂ - COOH 4-CI-phenyl - CH ₂ -CH ₂ - COOH 4-CI-phenyl - CH ₂ -CH ₂ - COOH 4-CF ₃ -phenyl - CH ₂ -CH ₂ - COOH 4-CF ₃ -phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - COOH			3-OMe-phenyl	ОМе	0- CH ₂	0- CH ₂ -CH ₂ -C	z	z	्
COOH 4-Cl-phenyl -CH ₂ -CH ₂ - COOH 4-Cl-phenyl -CH ₂ -CH ₂ - COOH 4-CF ₃ -phenyl -CH ₂ -CH ₂ - COOH 4-CF ₃ -phenyl -CH ₂ -CH ₂ - COOH phenyl -CH ₂ -CH ₂ - COOH 4-Cl-phenyl -CH ₂ -CH ₂ - COOH 4-Cl-phenyl -CH ₂ -CH ₂ - COOH 4-Cl-phenyl -CH ₂ -CH ₂ - COOH 4-Mc-phenyl -CH ₂ -CH ₂ - COOH 4-Mc-phenyl -CH ₂ -CH ₂ - COOH 4-Mc-phenyl -CH ₂ -CH ₂ - COOH phenyl -			3-Me-4-SMe-phenyl	оМе	Me	СН	z	z	0
COOH 4-CI-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-CI-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH 4-Me-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH 4-Me-phenyl			3-OMe-phenyl	оМе	0-CH ₂	0- CH2-CH2-C	z	z	0
COOH 4-CF ₃ -phenyl -CH ₂ -CH ₂ - COOH 4-CF ₃ -phenyl -CH ₂ -CH ₂ - COOH phenyl -CH ₂ -CH ₂ - COOH 4-Me-phenyl -CH ₂ -CH ₂ - COOH 4-CI-phenyl -CH ₂ -CH ₂ - COOH 4-CI-phenyl -CH ₂ -CH ₂ - COOH 4-CI-phenyl -CH ₂ -CH ₂ - COOH 4-Me-phenyl -CH ₂ -CH ₂ - COOH 4-Me-phenyl -CH ₂ -CH ₂ - COOH phenyl -CH ₂ -CH ₂ - COOH q-Me-phenyl -CH ₂	Ť		2-OMe-phenyl	OMe	Me	СН	Z	z	0
COOH 4-CF ₃ -phenyl - CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH 4-Cl-phenyl - CH ₂ -CH ₂ - COOH 4-Cl-phenyl - CH ₂ -CH ₂ - COOH 4-Mc-phenyl - CH ₂ -CH ₂ - COOH 4-Mc-phenyl - CH ₂ -CH ₂ - COOH 4-Mc-phenyl - CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - COOH phenyl <td< td=""><td>Ė</td><td></td><td>cyclohexyl</td><td>OMe</td><td>Me</td><td>СН</td><td>z</td><td>z</td><td>٥</td></td<>	Ė		cyclohexyl	OMe	Me	СН	z	z	٥
COOH phenyl - CH2-CH2- CH2- COOH phenyl - CH2-CH2- CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-CI-phenyl - CH2-CH2- COOH 4-CI-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH phenyl - CH2-CH2-	Ť		4-Mc-phenyl	Me	Me	СН	z	z	S
COOH phenyl - CH2-CH2- CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-CI-phenyl - CH2-CH2- COOH 4-CI-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH q-Me-phenyl - CH2-CH2- COOH q-Me-phenyl - CH2-CH2- COOH q-Me-phenyl - CH2-CH2-	Ť	CH2-	3,4-di-OMe-phenyl	Me	Me	СН	z	z	o
COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH 4-Cl-phenyl - CH ₂ -CH ₂ - COOH 4-Cl-phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ - COOH 4-Me-phenyl - CH ₂ -CH ₂ -			3,4-di-OMe-phenyl	Me	Me	z	z	z	0
COOH 4-Cl-phenyl - CH2-CH2- COOH 4-Cl-phenyl - CH2-CH2- COOH 4-CF3-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2-			cyclohexyl	OMe	Me	СН	z	z	0
COOH 4-CI-phenyl -CH2-CH2- COOH 4-CF3-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2-	İ		4-SMc-phenyl	Me	Me	z	z	z	
COOH 4-CF3-phenyl - CH2-CH2- CH2- COOH 4-Mc-phenyl - CH2-CH2- CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2- COOH 4-Mc-phenyl - CH2-CH2-	İ		4-SMe-phenyl	ethyl	Me	СН	z	z	
COOH 4-Me-phenyl - CH2-CH2- CH2- COOH 4-Me-phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2-	Ė	CH ₂ -	4-Me-phenyl	OMe	0- CH ₂	0- СН2-СН2-С	z	z	
COOH 4-Mc-phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2- COOH 4-Mc-phenyl -CH2-CH2-	<u> </u>		4-OMc-phenyl	OMe	Me	СH	z	z	
COOH phenyl - CH2-CH2- COOH phenyl - CH2-CH2- CH2- COOH phenyl - CH2-CH2- CH2- COOH phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2-		H2-	4-OMc-phenyl	Me	Me	СН	z	z	S
COOH phenyl - CH2-CH2- CH2- COOH phenyl - CH2-CH2- CH2- COOH phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2-		H ₂ -	3,4-methylenedioxyphenyl	OMe	CH ₂ - CF	CH2-CH2-CH2-C	z	z	0
COOH phenyl - CH2-CH2- CH2- COOH phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2- COOH 4-Me-phenyl - CH2-CH2-		H ₂ - CH ₂ -	phenyl	OMe	Me	CH	z	z	0
COOH 4-Mc-phenyl - CH ₂ -CH ₂ - COOH 4-Mc-phenyl - CH ₂ -CH ₂ - COOH 4-Mc-phenyl - CH ₂ -CH ₂ -	<u> </u>		phenyl	Me	Me	5	z	z	
COOH 4-Me-phenyl -CH ₂ -CH ₂ -CH ₂ -COOH 4-Me-phenyl -CH ₂ -			3,4-methylenedioxyphenyl	ОМе	0- CH ₂	0- CH ₂ -CH ₂ -C	z	z	٥
COOH 4-Me-phenyl CH2-CH2-			3,4-di-OMc-phenyi	Me	Me	z	<u>키</u>	z	0
ייייין יייין יייין עייין		Н2-	3,4-di-OMc-phenyl	ethyl	Me	СН	z	z	S
COOR 4-CI-phenyi - Cit2-Cit2-	4-CI-phenyl - CH2-CH2-	Н2-	4-CI-phenyl	Mc	Me	z	z	z	0
- CH ₂ -CH ₂ -		Н2-	4-CI-phenyl	ethyl	Me	품	z	z	
- CH ₂ -CH ₂ - CH ₂ -		H ₂ - CH ₂ -	3,4-di-OMe-phenyl	CF3	Me	CH	z	z	0

No.	R1	R4, R5	0	R6	R ²	R3	Z	×	٨	≯
1-507	СООН	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMc-phenyl	OMe	Me	₹	z	z	0
1-508	Н000	4-Me-phenyl	- CH ₂ -CH ₂ -	cyclopentyl	OMe	Mc	CH CH	z	z	0
1-509	Н000	phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	CF3	Me	ਲ	z	z	0
1-510	Н000	phenyí	- CH ₂ -CH ₂ -	4-OEt-phenyl	OMe	Me	CH	z	z	0
1-511	C00H	4-CF3-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-Me-phenyl	Me	Me	Z	z	z	0
1-512	СООН	4-CF ₃ -phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-Me-phenyl	ethyl	Me	₽	z	z	0
1-513	НООЭ	4-Me-phenyl	· CH ₂ ·CH ₂ -	4-SMe-phenyl	OMe	Mc	B	z	z	S
1-514	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	ethyl	Me	z	z	z	0
1-515	НООЭ	4-Me-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	OMe	0-CH ₂	0- CH ₂ -CH ₂ -C	z	z	0
1-516	C00H	phenyi	- CH ₂ -CH ₂ - CH ₂ -	phenyi	CF_3	Me	뜐	z	z	0
1-517	Н000	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	0- CH ₂	0- CH ₂ -CH ₂ -C	z	z	0
1-518	Ю00	phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	G.	Me	Æ	z	z	0
1-519	СООН	4-Mc-phenyl	- CH ₂ -CH ₂ -	4-SMc-phenyl	ethyl	Me	СН	H	z	0
1-520	000	4-Cl-phenyi	- CH ₂ -CH ₂ -	3-OMe-phenyi	Me	Me	z	z	z	0
1-521	Н000	4-Cl-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	ethyl	Me	НЭ	z	z	0
1-522	Н000	phenyi	- CH ₂ -CH ₂ - CH ₂ -	4-OMe-phenyl	OMe	CH2-CH	CH2-CH2-CH2-C	z	z	0
1-523	Н000	phenyi	- CH ₂ -CH ₂ - CH ₂ -	4-OMe-phenyl	OMe	0-CH ₂	0-CH2-CH2-C	z	z	0
1-524	СООМе	4-Me-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyl	OMe	0- CH ₂	0-CH2-CH2-C	N	z	0
1-525	СООМе	phenyt	- CH ₂ -CH ₂ - CH ₂ -	phenyl	CF_3	Me	СН	z	z	0
1-526	НООЭ	phenyl	- CH ₂ -CH ₂ -	phenyl	OMe	Me	СН	z	z	S
1-527	Н000	4-CF3-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	ethyl	Me	НЭ	z	z	0
1-528	Н000	4-CF3-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	OMc	O-CH2-CH2-C	-CH2-C	z	z	0
1-529	Н000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	ОМе	Me	НЭ	Z	Z	0
1-530	СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyi	Me	Me	СН	Z	z	0

No.	RI	R4, R5	0	R6	R ²	R³	Z	×	7	≱
I-531	коон	4-Me-phenyl	· CH ₂ -CH ₂ -	4-Me-phenyl	Me	Me	2	z	Z	0
1-532	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	4-Me-phenyi	ethyl	Me	СН	Z	Z	0
1-533	соон	phenyl	- CH ₂ -CH ₂ -	4-F-phenyl	Me	Me	СН	Z	z	0
I-534	СООН	phenyl	- CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	Me	Me	Z	Z	z	0
1-535	нооэ	phenyl	- CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	cthyl	Me	СН	Z	Z	0
1-536	СООН	phenyl	· CH ₂ -CH ₂ -	phenyl	Mc	Me	Z	Z	СН	0
1-537	соон	4-Br-phenyl	- CH ₂ -CH ₂ -	phenyl	ethyl	Mc	СН	z	z	0
1-538	нооэ	phenyl	- CH ₂ -CH ₂ -	4-OMc-phenyi	Me	Mc	Z	z	z	0
1-539	НООО	phenyl	· CH ₂ ·CH ₂ · CH ₂ -	4-OMc-phenyl	cthyl	Me	СН	z	z	0
1-540	соон	4-CI-phenyl	· CH ₂ -CH ₂ -	4-CI-phenyi	ОМс	Me	СН	Z.	z	0
1-541	нооэ	4-CI-phenyl	-CH ₂ -CH ₂ -	4-CI-phenyl	Me	Me	СН	z	z	0
1-542	соон	4-F-phenyl	- CH ₂ -CH ₂ -	phenyl	OMe	0- CH ₂	O- CH2-CH2-C	Z	z	0
I-543	соон	4-CF ₃ -phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	OMe	0- CH2-CH2-C	-CH ₂ -C	Z	z	0
I-544	нооэ	4-CF ₃ -phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	OMe	Me	СH	Z	z	0
I-545	соон	phenyl	- CH ₂ -CH ₂ -	naphth-2-yl	ОМе	CH ₂ - CH	CH2-CH2-CH2-C	Z.	z	0
1-546	соон	phenyl	- CH ₂ -CH ₂ -	naphth-2-yl	ОМе	0-CH2-CH2-C	-CH ₂ -C	Z	z	0
1-547	СООН	4-Mc-phenyl	· CH ₂ -CH ₂ -	4-Me-phenyl	OMe	Me	СН	z	Z	0
1-548	СООН	4-Me-phenyl	- CH ₂ -CH ₂ -	4-Mc-phenyl	Me	Me	СН	z	z	0
1-549	COOMe	phenyl	- CH(phenyl)-CH ₂ - CH ₂ -	phenyl	CF3	Me	СН	z	z	0
1-550	нооэ	4-F-phenyl	- CH(phenyl)-CH2- CH2-	phenyl	ОМс	Me	СН	z	z	0
1-551	СООН	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	ethyl	Me	СН	z	z	0
1-552	СООН	phenyl	· CH ₂ -CH ₂ -	4-OMe-phenyi	ОМе	CH ₂ - CH	CH2- CH2-CH2-C	N	z	0
1-553	НООО	phenyl	- CH(phenyl)-CH ₂ - CH ₂ -	phenyl	Me	Me	СН	СН	z	0
	нооэ	phenyl	· CH ₂ -CH ₂ -	4-OMe-phenyl	ОМе	Me	СН	z	z	0
1-555	СООН	phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	СH	Z	z	0

OMe Me CH Me Me CH OMe Me CH2-CH2-C ethyl Me CH cthyl Me CH ethyl Me CH ethyl Me CH oMe CH CH oMe CH CH	Me Me Me Me Me Me	Me Me Me Me	Me Me Me Me	MC MC MC MC MC MC MC MC MC MC MC MC MC M	Me Me Me Me Me Me Me Me Me Me Me Me Me M	W W W W W W W W W W W W W W W W W W W	Me Me Me Me Me Me Me Me Me Me Me Me Me M	Me Me Me Me Me Me Me Me Me Me Me Me Me M						
Me Me Me	Me Me Me Me	Me Me Me Me Me	Me Me Me	Me Me Me Me Me	Me Me Me Me Me Me Me Me Me Me Me Me Me	Me Me Me Me Me Me	Me Me Me Me Me Me Me Me Me Me	Me Me Me Me Me Me Me Me Me Me Me Me Me M						
1-1-1-1-1-1	1-1-1-1-1-1-1			1-1-1-1-1-1-1-1	1-1-1-1-1-1-1-1-1			 						
				999999999	\$ 6 6 6 6 6 6 6 6 <u>\$</u>	5 \$ £ £ £ £ £ £ £ £ £ £ £	하는 것 같은 한 시간 이 시간 시간 시간 시간 시간 시간 시간 시간 시간 시간 시간 시간 시간	리우 지지 씨진 얼굴 얼얼 이 씨의 씨씨 씨	1	- - - - - - - - - - - - - - - - - - - 	- - - - - - - - - - - - - - - - - - - 	Me Me Me Me Me Me Me Me Me Me Me Me Me M	We We We We We We We We We We We We We W	We We We We We We We We We We We We We W
					- - - - - - - - - - 		ethyl ethyl ome cthyl ome CF3	OMe CF3 OMe OMe OMe OMe OMe OMe OMe OMe OMe	oMe ethyl cthyl CF3 cthyl OMe OMe OMe OMe OMe OMe OMe CF3			Me Me Me Me Me Me Me Me Me Me Me Me Me M	Me Me Me Me Me Me Me Me Me Me Me Me Me M	Me Me Me Me Me Me Me Me Me Me Me Me Me M
	phenyl	phenyl phenyl	phenyl phenyl	oxyphenyl										
phenyl 4-OMe-phenyl 4-SMe-phenyl 4-SMe-phenyl	I le-phenyl le-p	le-phenyl e-phenyl e-phenyl te-phenyl tri-OMe-phenyl tri-OMe-phenyl	le-phenyl le-phenyl e-phenyl e-phenyl iri-OMe-phenyl tri-OMe-phenyl	le-phenyl e-phenyl e-phenyl te-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl	le-phenyl e-phenyl e-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl te-phenyl	le-phenyl e-phenyl e-phenyl e-phenyl tri-OMe-phenyl tri-OMe-phenyl tc-phenyl tc-phenyl	le-phenyl e-phenyl e-phenyl c-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl nethylenedioxyph	le-phenyl le-phenyl e-phenyl ri-OMe-phenyl ri-OMe-phenyl re-phenyl rethylenedioxyph rethylenedioxyph rethylenedioxyph rethylenedioxyph rethylenedioxyph rethylenedioxyph rethylenedioxyph	le-phenyl e-phenyl e-phenyl e-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl tethylenedioxyph tethylenedioxyph Ae-phenyl Ae-phenyl Ae-phenyl	le-phenyl e-phenyl e-phenyl e-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl te-phenyl te-phenyl te-phenyl	le-phenyl phenyl	le-phenyl e-phenyl e-phenyl e-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl tethylenedioxyph tethylenedioxyph tethylenedioxyph tethylenedioxyph te-phenyl te-phenyl te-phenyl te-phenyl	le-phenyl e-phenyl e-phenyl e-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl te-phenyl te-phenyl te-phenyl te-phenyl te-phenyl i-OMe-phenyl i-OMe-phenyl	le-phenyl e-phenyl e-phenyl i-phenyl i-phenyl tri-OMe-phenyl tri-OMe-phenyl te-phenyl te-phenyl de-phenyl de-phenyl i-OMe-phenyl i-OMe-phenyl i-OMe-phenyl i-OMe-phenyl i-OMe-phenyl i-OMe-phenyl i-OMe-phenyl i-OMe-phenyl
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- CH(phenyl)-CH2- CH2-
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3,4-di-OMe-phenyl
3,5-di-OMe-phenyl
4-Me-phenyl
4-OMe-phenyl
3,5-di-OMe-phenyl
- CH(OH)-CH(OH)- CH ₂ - 3,4-di-OMe-phenyl
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4-SMc-phenyl
3,4-di-OMe-phenyl
3,4-di-OMe-phenyl
3,4,5-tri-OMe-phenyl
3,4,5-tri-OMe-phenyl
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R4, R5	phenyl	4-Et-phenyl	4-Et-phenyl	4-Br-phenyl	4-CI-phenyl	4-Me-phenyl	4-Me-phenyl	4-Cl-phenyl	phenyl	phenyl	phenyl	phenyl	phenyl	phenyi	phenyl	phenyl	phenyl	4-Et-phenyl	4-Et-phenyl	phenyl	4-CI-phenyl	4-Me-phenyl	4-Me-phenyl	4-CI-phenyl	
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So.	909-1	1-607	1-608	1-609	I-610	1-611	1-612	1-613	1-614	1-615	1-616	1-617	I-618	1-619	1-620	1-621	1-622	1-623	1-624	1-625	1-626	1-627	1-628	1-629	

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R2	Me	ethyl	OMe	Æ	OMe	£	ethyl	OMe	ethyl	ethyl	cthyl	ОМе	OMe	OMe	ethyl	OMe	G_3	OMe	OMe	OMe	OMe	ethyl	οМο	CF_3	Me
R6	4-Me-phenyl	4-Et-phenyl	4-Et-phenyl	4-Me-phenyi	3,4-di-OMe-phenyl	phenyl	phenyl	3,4,5-tri-OMe-phenyl	4-Me-phenyl	4-iPr-phenyl	3-OMe-phenyl	3-OMe-phenyl	4-iPr-phenyl	4-Me-phenyl	3,4-di-OMe-phenyl	3,4-di-OMe-phenyl	4-Et-phenyl	4-Me-phenyl	4-Et-phenyl	4-Et-phenyl	4-CI-phenyl	4-Me-phenyl	4-Et-phenyl	naphth-2-yl	3,4-di-Cl-phenyl
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		2	4					•
КООН	phenyl	- CH=CH- CH ₂ -	4-OMe-phenyl	OMe	Me	НЭ	Z	z
COOMe	phenyl	· CH=CH- CH ₂ -	4-OMe-phenyl	Mc	Me	НЭ	Z	z
КООЭ	4-CI-phenyl	· CH ₂ -CH ₂ - CH ₂ -	4-OEt, 3-OMe-phenyl	OMe	0- CH ₂	0- CH ₂ -CH ₂ -C	Z	z
Н000	4-CI-phenyi	- CH ₂ -CH ₂ - CH ₂ -	4-iPr-phenyl	Me	Me	Z	z	z
СООН	4-Ci-phenyi	· CH ₂ ·CH ₂ ·	4-Me-phenyl	OMe	Me	Н	z	z
СООН	4-CI-phenyl	· CH ₂ -CH ₂ -	4-Me-phenyi	Me	Me	СН	z	z
СООН	phenyl	· CH=CH· CH ₂ -	4-OMe-phenyl	Me	Me	N	СН	z
НООО	phenyl	- CH ₂ -CH ₂ -	4-CI-phenyl	Me	Me	НЭ	N	z
НООО	phenyl	- CH ₂ -CH ₂ -	4-CI-phenyl	Me	Me	N	Z	z
СООН	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	3-OMe-phenyl	Mc	Me	Z	Z	z
НООО	4-CI-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyi	ethyl	Me	СН	z	z
Н000	phenyl	· CH=CH- CH ₂ -	3-CI-4-OMe-phenyl	ethyl	Me	СН	z	z
КООН	phenyl	· CH=CH· CH ₂ -	3-CI-4-OMe-phenyl	OMe	0- CH ₂	O- CH ₂ -CH ₂ -C	z	z
НООЭ	phenyl	· CH ₂ -CH ₂ -	phenyl	OMe	Me	СН	z	z
КООН	phenyl	· CH ₂ -CH ₂ -	phenyl	Me	Me	CH	z	z
НООЭ	4-F-phenyl	- CH≖CH- CH₂-	3,4-di-OMe-phenyl	ОМе	Me	СН	z	z
нооэ	4-CI-phenyl	· CH ₂ -CH ₂ · CH ₂ ·	4-SMe-phenyi	ОМе	O- CH2-CH2-C	-CH ₂ -C	z	z
СООН	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-OEt, 3-OMe-phenyl	ОМе	Me	СН	z	z
СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	OMe	Me	СH	z	z
СООН	4-Cl-phenyl	- CH ₂ -CH ₂ -	4-OEt-phenyl	Me	Me	СН	z	0 z
сооме	phenyl	· CH=CH· CH ₂ -	3,4-di-OMe-phenyl	Me	Me	СН	z	z
СООН	phenyl	- CH=CH- CH ₂ -	3,4-di-OMe-phenyl	Me	Me	Z	픙	z
нооэ	phenyl	- СН=СН- СН2-	3,4-di-OMe-phenyl	OMe	0- CH ₂	0- CH ₂ -CH ₂ -C	z.	z
соон	4-Cl-phenyl	- CH ₂ -CH ₂ -	3-OMe-phenyl	ОМе	Me	СН	z	z
H000	4-CI-phenyl	· CH ₂ · CH ₂ ·	3-OMe-phenyl	Mc	Me	СН	z	о 2

No.	RI	R4, R5	0	R6	R ²	R ³	2	×	Y	A
1-731	Н000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	ethyl	Me	СН	z	z	0
1-732	СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	OMe	О- СН2-CH2-C	-CH ₂ -C	z	z	0
1-733	СООН	phenyl	- CH=CH- CH ₂ -	cyclohexyl	OMe	Me	СН	z	z	0
1-734	КООН	phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	OMe	CH2-CH	CH2- CH2-CH2-C	z	z	٥
1-735	НООЭ	phenyi	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	OMc	O-CH2-CH2-C	-CH ₂ -C	z	z	0
1-736	НООО	4-CI-phenyl	· CH ₂ -CH ₂ - CH ₂ -	4-SMc-phenyl	Me	Me	Z	z	z	0
1-737	НООЭ	4-Cl-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-SMe-phenyl	ethyl	Me	СН	z	z	o
1-738	H000	phenyl	- CH=CH- CH ₂ -	cyclohexyl	Mc	Me	СН	z	z	0
1-739	Н000	phenyl	- CH=CH- CH ₂ -	4-Me-phenyl	Me	Me	Z	z	z	S
1-740	СООН	4-CI-phenyl	- CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	ethyl	Me	СН	z	z	ी
1-741	Н000	4-CI-phenyl	· CH ₂ -CH ₂ -	3,4-methylenedioxyphenyl	ОМе	0-CH ₂	0- CH ₂ -CH ₂ -C	z	z	٥
1-742	H000	phenyl	- C(phenyl)=CH- CH ₂ -	phenyl	OMe	Me	СН	z	z	
I-743	COOH	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,5-di-OMe-phenyl	OMe	Me	СН	z	z	٥
1-744	НООЭ	4-CI-phenyl	- CH ₂ -CH ₂ - CH ₂ -	3,5-di-OMe-phenyi	Me	Me	СН	z	z	٥
1-745	СООН	phenyl	- CH ₂ -CH ₂ -	4-CI-phenyl	CF3	Me	СН	z	z	
1-746	НООЭ	phenyl	- CH ₂ -CH ₂ -	4-Cl-phenyl	ОМе	Me	СН	z	z	
1-747	Н000	4-F-phenyl	· CH=CH· CH ₂ -	phenyi	Me	Me	СН	z	z	0
1-748	НООО	4-F-phenyl	· CH=CH· CH ₂ -	phenyl	Me	Me	z	z		
1-749	Н000	phenyl	-CH ₂ -CH ₂ -	4-OEI-3-OMe-phenyl	Me	Me	Z	z	z	0
1-750	НООО	4-CI-phenyl	· CH ₂ -CH ₂ -	4-SMe-phenyl	OMe	Me	СН	z	z	
1-751	Н000	4-CI-phenyl	- CH ₂ -CH ₂ -	4-SMe-phenyl	Me	Mc	CH	z		0
1-752	СООН	phenyl	- CH ₂ -CH ₂ -	4-OEt-3-OMe-phenyl	ethyl	Me	CH	z	z	J
1-753	HOOO	phenyl	- C(phenyl)=CH- CH ₂ -	phenyl	ethyl	Me	æ	z	z	
1-754	НООЭ	4-CI-pheny!	- CH ₂ -CH ₂ -	naphth-2-yi	ethyl	Me	СН	z	z	0
1-755	НООЭ	4-CI-phenyl	· CH ₂ -CH ₂ -	naphth-2-yl	ОМе	0- CH ₂	0- CH2-CH2-C	z	z	

					*		2	^	,	3
٤	l M	R4 R5	0	Ro	<u>*</u>	К-	7	<		=
756	HOW	ohenvl	- CH=CH- CH ₂ -	ohenyl	ОМе	0-CH ₂	0-CH2-CH2-C	z	z	S
3	::000		מו כוו	4 Oft-nhanul	ğ	Me	СН	z	z	0
1-757	HOOS	4-CI-pnenyi	- Cn2-Cn2-	4-Oct-plicity:					2	6
1-758	СООН	4-Cl-phenyl	- CH ₂ -CH ₂ - CH ₂ -	4-OEt-phenyl	ethyl	Me	5	z	2	5
1-759	COOH	ohenvl	- CH ₂ -CH ₂ - CH ₂ -	4-OEt-phenyl	CF3	Mc	СН	z	z	0
096	H000	phenyl	. CH2-CH2- CH2-	4-OEt-phenyl	ОМе	Mc	H	z	z	0
30/-1	1000	puruj.	7 7 7	4 OMe-shenvi	ž	Me	E	z	z	0
1-761	H083	4-CI-phenyl	- CH2-CH2-	4-Olvic-plicityi];	,	T _c
1-762	НОС	4-CI-phenyl	- CH ₂ -CH ₂ -	4-OMe-phenyl	Me	Me	Z	z	Z	5
1-763	HOOD	4-CI-phenyl	- СНСН СН-	3,4-di-OMe-phenyl	ethyl	Me	СН	z	z	0
1-764	COCH	4-CI-phenyl	- CH ₂ -CH ₂ -	3,4-di-OMe-phenyl	OMe	0- CH ₂	0- СН2-СН2-С	z	z	0
256	200	- Paris	CH2. CH3.	4-OEt-phenyl	Me	Me	СН	z	Z	0
CO/-1	5000	piiciiyi	7.10 7.10 7.10							

Example 16

Receptor binding data were measured by the binding assay 5 described above for the compounds listed hereinafter.

The results are shown in Table 2.

Table 2

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Receptor binding data (Ki values)

	Compound	ET _A [nM/l] [sic]	ETB [nM/l] [sic]
15			
	I-116	35	35
	I-140	575	460
	I-146	4	29
	I-321	340	290
20	I-355	132	82
	I-370	11	54
	I-445	3.5	7.2
	I-445 (S) enantiomer	1.3	4.1
	I-445 (R) enantiomer	65	140
25	I-482	2	14
	I-499	31	135
	I-585	6	23
	I-593	300	160
20	I-622	3	23
30	I-635	210	126
	I-672	60	185
	I-699	230	130
	I-713	20	96

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We claim:

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1. A carboxylic acid derivative of the formula I

where R^1 is tetrazole [sic] or a group

where R has the following meaning:

a) a radical OR^7 where R^7 is:

hydrogen, the cation of an alkali metal, the cation of an alkaline earth metal or a physiologically tolerated organic ammonium ion;

25 C_3-C_8 -cycloalkyl, C_1-C_8 -alkyl,

CH2-phenyl, unsubstituted or substituted,

 C_3 - C_6 -alkenyl or C_3 - C_6 -alkynyl, unsubstituted or substituted, or

phenyl, unsubstituted or substituted,

- b) a 5-membered heteroaromatic system which is linked via a
 nitrogen atom,
 - c) a group

where k can be 0, 1 and 2, p can be 1, 2, 3 and 4, and R^8 is C_1-C_4 -alkyl, C_3-C_8 -cycloalkyl, C_3-C_6 -alkenyl, C_3-C_6 -alkynyl or unsubstituted or substituted phenyl,

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d) a radical

O || S-R9

where R9 is:

 $C_1-C_4-alkyl$, $C_3-C_6-alkenyl$, $C_3-C_6-alkynyl$, $C_3-C_8-cycloalkyl$, it being possible for these radicals to carry a $C_1-C_4-alkoxy$, $C_1-C_4-alkylthio$ and/or a phenyl radical;

phenyl, unsubstituted or substituted,

15 e) a radical

-N R13

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where \mathbf{R}^{13} and \mathbf{R}^{14} can be identical or different and have the following meanings:

hydrogen, C_1-C_8 -alkyl, C_3-C_8 -cycloalkyl, C_3-C_8 -alkenyl, C_3-C_8 -alkynyl, benzyl, phenyl, unsubstituted or substituted,

or \mathbb{R}^{13} and \mathbb{R}^{14} together form a \mathbb{C}_4 - \mathbb{C}_7 -alkylene chain which is closed to form a ring, is unsubstituted or substituted and may contain a hetero atom.

R² is hydrogen, hydroxyl, NH₂, NH(C₁-C₄-alkyl), N(C₁-C₄-alkyl)₂, halogen, C₁-C₄-alkyl, C₂-C₄-alkenyl, C₂-C₄-alkynyl, C₁-C₄-haloalkyl, C₁-C₄-alkoxy, C₁-C₄-haloalkoxy or

35 C₁-C₄-alkylthio, or CR² is linked to CR¹⁰ as indicated below to give a 5- or 6-membered ring;

- X is nitrogen or methine;
- 40 Y is nitrogen or methine;
 - is nitrogen or CR10, where R10 is hydrogen or C1-4-alkyl, or CR10 forms together with CR2 or CR3 a 5- or 6-membered alkylene or alkenylene ring which may be substituted, and in which in each case one or more methylene groups can be

which in each case one or more methylene groups can be replaced by oxygen, sulfur, -NH or -N(C_{1-C4-alkyl)};

72

- is hydrogen, hydroxyl, NH_2 , $NH(C_1-C_4-alkyl)$, $N(C_1-C_4-alkyl)_2$, halogen, C_1 - C_4 -alkyl, C_2 - C_4 -alkenyl, C_2 - C_4 -alkynyl, C_1-C_4 -hydroxyalkyl, C_1-C_4 -haloalkyl, C_1-C_4 -alkoxy, C_1-C_4 -haloalkoxy, C_1-C_4 -alkylthio; or CR^3 is linked to CR^{10} as 5 indicated above to give a 5- or 6-membered ring;
 - and R^5 (which may be identical or different): R4

phenyl or naphthyl, unsubstituted or substituted, or 10

phenyl or naphthyl which are connected together in the ortho positions via a direct linkage, a methylene, ethylene or ethenylene group, an oxygen or sulfur atom or an SO2, NH or N-alkyl group,

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C₃-C₈-cycloalkyl, unsubstituted or substituted;

- is unsubstituted or substituted C3-C8-cycloalkyl;
- 20 phenyl or naphthyl, unsubstituted or substituted; a five- or six-membered heteroaromatic system containing one to three nitrogen atoms and/or one sulfur or oxygen atom, and which may be substituted;
- 25 W is sulfur or oxygen;
 - is a spacer whose length corresponds to that of a C_2 - C_4 chain, Q

and the physiologically tolerated salts, and the enantiomerically 30 pure and diastereoisomerically pure forms.

- A pharmaceutical preparation for peroral, parenteral or intraperenteral [sic] use, comprising at least one carboxylic acid derivative I as claimed in claim 1, besides conventional 35 pharmaceutical ancillary substances.
 - The use of a carboxylic acid derivative as claimed in claim 1 for the treatment of diseases.
- 40 4. The use of a compound I as claimed in claim 3 as endothelin receptor antagonist.
- The use of a carboxylic acid derivative I as claimed in claim 1 for producing drugs for the treatment of diseases in which elevated endothelin levels occur. 45
- -6. The use of a carboxylic acid derivative I as claimed in claim

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1 for the treatment of chronic heart failure, restenosis, high blood pressure, pulmonary hypertension, acute/chronic kidney failure, cerebral ischemia, asthma, benign prostate hyperplasia and prostate cancer.

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7. The use of a carboxylic acid derivative I as claimed in claim l in combination with inhibitors of the renin-angiotensin system mixed ACE/neutral endopeptidase (NEP) inhibitors; β blockers.

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8. The use of a compound of the formula IV

$$R^{6} - Q - W - \begin{vmatrix} R^{4} \\ C \\ R^{5} \end{vmatrix} = OH \qquad IV$$

where R^1 , R^4 , R^5 , R^6 , Q and W have the meanings stated in claim 1, as starting material for synthesizing mixed ER_A/ET_B [sic] receptor antagonists.

9. A structural fragment of the formula

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$$\begin{array}{c|c}
R^4 & \\
R^6 - Q - W - \begin{matrix}
& R^4 \\
& C \\
& C \\
& R^5
\end{matrix}$$

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where R^1 , R^4 , R^5 , R^6 , Q and W have the meanings stated in claim 1, as structural element in a mixed ET_A/ET_B receptor antagonist.

35 10. A process for preparing carboxylic acid derivatives of the formula IV

by reacting compounds of the formula IVa

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with an alcohol or thiol of the formula III

10 R6-Q-W-H III

where R' [sic], R^4 , R^5 , R^6 , Q and W have the meanings stated in claim 1, and R^{18} is open-chain or cyclic alkyl or phenyl which is unsubstituted or substituted,

with acid catalysis.

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